



JOHN ENGLER Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING PO BOX 30473 LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

October 2, 2000

Mr. David Mange, Chairperson
Calhoun County Board of Commissioners
Calhoun County Building
315 West Green Street
Marshall, Michigan 49068

Dear Mr. Mange:

The Department of Environmental Quality (DEQ) received the locally approved update to the Calhoun County Solid Waste Management Plan (Plan) on March 10, 2000.

By this letter, this Plan is hereby approved and Calhoun County (County) now assumes responsibility for the enforcement and implementation of this Plan. The DEQ would like to thank the County for their efforts in addressing the County's solid waste management issues.

By approving the Plan, the DEQ has determined that it complies with the provisions of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the Part 115 administrative rules concerning the required content of solid waste management plans. Specifically, the DEQ has determined that the Plan identifies the enforceable mechanisms that authorize the state, a county, a municipality, or a person to take legal action to guarantee compliance with the Plan, as required by Part 115. The Plan is enforceable, however, only to the extent the County properly implements these enforceable mechanisms under applicable enabling legislation. The Plan itself does not serve as such underlying enabling authority, and the DEQ approval of the Plan neither restricts nor expands the County authority to implement these enforceable mechanisms.

The Plan may also contain other provisions that are neither required nor expressly authorized for inclusion in a solid waste management plan. The DEQ approval of the Plan does not extend to any such provisions. Under Part 115, the DEQ has no statutory authority to determine whether such provisions have any force or effect.

If you have any questions, please contact Mr. Seth Phillips, Chief, Solid Waste Management Unit, at 517-373-4750.

Sincerely,

A handwritten signature in cursive script, appearing to read "Russell J. Harding".

Russell J. Harding

Director

517-373-7917

cc: Senator John J. H. Schwarz, M.D.
Representative Mark Schauer
Representative Jerry Vander Roest
Ms. Whitney L. Goodnoe, Calhoun County Community Development
Mr. Arthur R. Nash Jr., Deputy Director, DEQ
Mr. Timothy R. Sowton, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Mr. Tomas Leep, DEQ - Plainwell
Mr. Seth Phillips, DEQ
Mr. Matt Staron, DEQ
Calhoun County File



JOHN ENGLER Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

Better Service for a Better Environment

HOLLISTER BUILDING PO BOX 30473 LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us

RUSSELL J. HARDING, Director

February 12, 1999

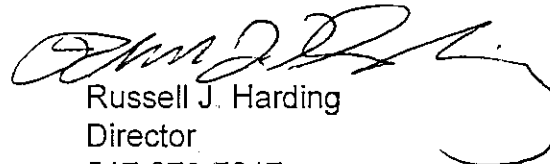
Mr. Ron Ivey, Chairperson
Board of Commissioners
County Building
315 West Green Street
Marshall, Michigan 49068

Dear Mr. Ivey:

The Department of Environmental Quality (DEQ) received a locally-approved Amendment to the approved five-year update of the Calhoun County Solid Waste Management Plan (Plan) on December 1, 1998. This Amendment authorizes the exportation of solid waste generated in Calhoun County to Allegan, Barry, Berrien, Branch, Cass, Clinton, Eaton, Hillsdale, Ingham, Jackson, Kalamazoo, Kent, Lenawee, Muskegon, Ottawa, St. Joseph, Van Buren, and Washtenaw Counties, if the solid waste management plan of the receiving county authorizes importation of solid waste from Calhoun County. This Amendment replaces the import authorization language currently in the Plan.

I am pleased to inform you that, by this letter, the proposed Amendment to the updated Calhoun County Plan is approved.

Sincerely,

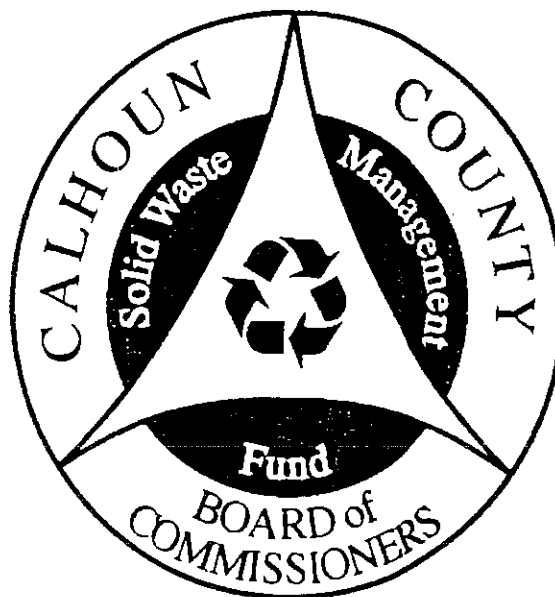

Russell J. Harding
Director
517-373-7917

cc: Senator John Swarz
Representative Mark Schauer
Representative Jerry Vander Roest
Ms. Whitney Goodnoe, Calhoun County Solid Waste Specialist
Mr. Flint Watt, Acting Deputy Director, DEQ
Ms. Cathy Wilson, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Mr. Tomas Leep, DEQ-Plainwell
Mr. Seth Phillips, DEQ
Ms. Melinda Keillor, DEQ

cc: Senator John Swarz
Representative Mark Schauer
Representative Jerry Vander Roest
Ms. Whitney Goodnoe, Calhoun County Solid Waste Specialist
Mr. Flint Watt, Acting Deputy Director, DEQ
Ms. Cathy Wilson, Legislative Liaison, DEQ
Mr. Jim Sygo, DEQ
Ms. Joan Peck, DEQ
Mr. Tomas Leep, DEQ-Plainwell
Mr. Seth Phillips, DEQ
Ms. Melinda Keillor, DEQ

bcc: Allegan County File
Barry County File
Berrien County File
Branch County File
Calhoun County File
Cass County File
Clinton County File
Eaton County File
Hillsdale County File
Ingham County File
Jackson County File
Kalamazoo County File
Kent County File
Lenawee County File
Muskegon County File
Ottawa County File
St. Joseph County File
Van Buren County File
Washtenaw County File

CALHOUN COUNTY
SOLID WASTE MANAGEMENT
PLAN
2000



Calhoun County

Solid Waste Management Plan

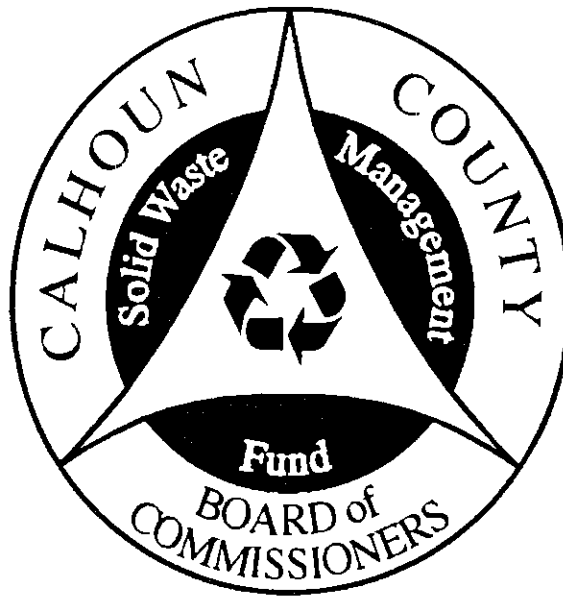
1999 PLAN UPDATE COVER PAGE

The Natural Resources and Environmental Protection Act, 1994, PA 451, as amended (NREPA), Part 115, Solid Waste Management, and its Administrative Rules, requires that each county have a Solid Waste Management Plan Update (Plan) approved by the Michigan Department of Environmental Quality (DEQ). Section 11539a requires the DEQ to prepare and make available a standardized format for the preparation of these Plan updates. In accordance with State instructions that counties utilize the format without alteration, this document duplicates, with minor changes, the table of contents, page numbering system, chapter titles and subject descriptions provided by DEQ.

Date Submitted to the DEQ: March 9, 2000

DESIGNATED PLANNING AGENCY PREPARING THIS PLAN UPDATE:

Private Consultant:	Mr. Roger Andrews Calhoun County Administrator's Office 315 West Green Street Marshall, MI 49068
CONTACT PERSON:	Whitney Goodnoe
ADDRESS:	Calhoun County Community Development 13300 Fifteen Mile Road Marshall, MI 49068
PHONE:	616-781-9841
FAX:	616-781-6101
CENTRAL REPOSITORY LOCATION(S):	Calhoun County Community Development 13300 Fifteen Mile Road Marshall, MI 49068



GLOSSARY

GLOSSARY

Act 451: The Michigan Solid Waste Management Act of 1994, as amended, that controls the processing of solid waste, mandates planning, and set standards for landfills.

Brownfield Area is a site, or portion thereof, that has actual or perceived contamination and an active potential for redevelopment or reuse.

Compost Site: Means a tract of land, building unit, or appurtenance of a building or unit or a combination of land, buildings, and units that is dedicated for composting yard clippings and/or garbage.

Composting: A technique whereby organic materials such as leaves, grass clippings, and food waste slowly decay and convert into a material known as humus, that can be used as a soil amendment.

Conditionally Exempt Small Quantity Generator (CESMQG) is a generator of hazardous waste that meets the special requirements for conditionally exempt status as defined under the Federal 40 Code of Regulations Part 261.

Designated Planning Agency (DPA): Means a governmental unit or regional planning agency which is determined under section 25 of Act 451 to be responsible for the preparation of a solid waste management plan.

Drop-Off Site: A place in the community where people can bring their recyclable materials (paper, cans, glass, plastic, etc) and drop them off in separate containers for recycling.

Hazardous Waste: Waste material which may pose a present or potential hazard to human health or the environment when improperly stored, transported, or disposed of or otherwise managed. Hazardous wastes are regulated under the Resource Conservation and Recovery Act.

Host Community: The community (local unit of government including cities, villages, and townships) where a solid waste management facility is proposed to be located. A nearby community is also a host community if any pertinent isolation distance of the solid waste management plan reaches into the nearby community in question.

Landfill – Type II: A lined landfill that can accept general municipal solid waste but not regulated hazardous waste.

Landfill – Type III: A lined or unlined landfill designed to accept building demolition materials and other inert materials that otherwise have a minimal potential for groundwater contamination.

Materials Recovery Facility (MRF): A facility that receives and processes source separated materials for the purpose of recycling.

Municipal Solid Waste: General residential, commercial, and industrial garbage or refuse. Municipal Solid Waste is to be distinguished from hazardous waste and Type III waste.

Recycling: Converting used, scrap or waste materials into raw materials or new products.

Reuse: The re-use of materials which have already been used in their regular cycle of production, and can be used again for their materials or energy value.

Solid Waste: Includes residential, commercial, and industrial wastes. Does not include: hazardous waste, liquid waste, human body waste, or other waste regulated by statute.

GLOSSARY

Solid Waste Hauler: Means a person who owns or operates a solid waste transporting unit.

Solid Waste Management Facility: Means a landfill, solid waste processing facility, a materials recovery facility, incinerator, waste-to-energy plant, compost site, or transfer station.

Solid Waste Management Fund (SWMF): Through an agreement between Calhoun County and BFI, a 3% surcharge is paid to the County on each cubic yard of waste accepted at the facility. The money is designated in the SWMF and used for improving the overall solid waste management system of the County.

Solid Waste Management Planning Committee (SWMPC): Means a committee established under section 26 of Act 641 to aid in the preparation of a county solid waste management plan.

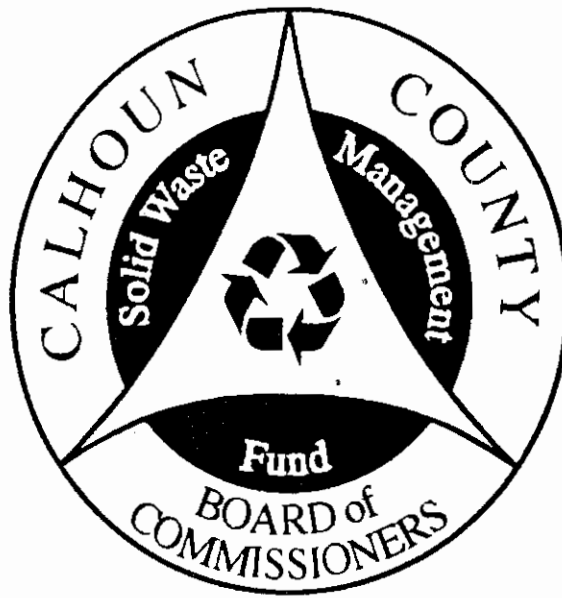
Solid Waste Processing Facility: Means a tract of land, building, unit, or appurtenance of a building or unit or a combination of land, buildings, and units that is used or intended for use for the processing of solid waste or separation of material for salvage or disposal, or both, but does not include a plant engaged primarily in the acquisition, processing, and shipment of ferrous or nonferrous metal scrap, or a plant engaged primarily in the acquisition, processing, and shipment of slag or slag products, refer to Rule # 401 of Act 451 for more details. Solid waste processing facilities do not include those facilities which process source separated materials such as glass, cans, paper, and tires for the purpose of recycling.

Source Separated Material: Means glass, metal, wood, paper products, plastics, rubber, textiles, garbage, yard clippings, or any other material approved by the Director of the Department of Environmental Quality that is separated at the source of generation for the purpose of conversion into raw materials or new products.

Transfer Station: A facility designed to collect smaller quantities of solid waste, combine them and ship longer distances in larger more economical quantities to a solid waste disposal facility.

Waste Reduction: The prevention of waste at its sources, either by the redesign of products or by otherwise changing societal patterns of production and consumption.

Waste-to-Energy Facility: This term refers to a plant where waste materials are burned under controlled conditions and a heat (energy) recovery system is in place, and the recovered heat is put to a useful purpose.



CHAPTER I
EXECUTIVE SUMMARY AND
INTRODUCTION

EXECUTIVE SUMMARY

The following summarizes the solid waste management system selected to manage solid waste within Calhoun County. In case of conflicting information between the executive summary and the remaining contents of the Plan update, the information provided in the main body of the Plan update would take precedence over the executive summary. A glossary of terms used throughout this document can be found at the end of Chapter III.

OVERALL VIEW OF THE COUNTY

Data was provided by the Calhoun County Community Development, Planning Department. Economic and land use information was not available by individual municipality. A breakdown of population by local unit can be found in the Demographics section of Chapter II.

Township or Municipal Name	1990 Population	% Land Use		% of Economic Base			
		Rural	Urban	Ag or Undeveloped	Ind	Com	Oth
Albion Twp	1,256	100%	0%	93.7%	0.0%	0.2%	6.1%
Athens Twp*	1,525	100%	0%	94.6%	0.0%	0.1%	5.3%
Bedford Twp	9,810	75%	25%	73.1%	0.2%	0.3%	26.4%
Burlington Twp*	1,472	100%	0%	95.7%	0.0%	0.1%	4.2%
Clarence Twp	2,051	100%	0%	94.6%	0.0%	0.1%	5.3%
Clarendon Twp	1,100	100%	0%	96.8%	0.0%	0.1%	3.1%
Convis Twp	1,739	100%	0%	91.5%	0.0%	0.1%	8.4%
Eckford Twp	1,217	100%	0%	94.5%	0.0%	0.1%	5.4%
Emmett Twp	10,764	75%	25%	76.1%	0.2%	0.7%	23.0%
Fredonia Twp	1,741	100%	0%	92.1%	0.0%	0.1%	7.8%
Homer Twp	1,117	100%	0%	94.4%	0.0%	0.1%	5.5%
Lee Twp	1,281	100%	0%	96.5%	0.0%	0.1%	3.4%
Leroy Twp	3,026	95%	5%	92.1%	0.0%	0.1%	7.8%
Marengo Twp	1,781	100%	0%	91.9%	0.0%	0.1%	8.0%
Marshall Twp	2,655	95%	5%	90.9%	0.0%	0.1%	9.0%
Newton Twp	2,025	100%	0%	90.0%	0.0%	0.0%	10.0%
Pennfield Twp	8,386	75%	25%	85.3%	0.0%	0.2%	14.5%
Sheridan Twp	2,139	95%	5%	80.5%	0.2%	0.3%	19.0%
Tekonsha Twp	1,027	100%	0%	92.4%	0.0%	0.1%	7.5%
Albion City	10,066	0%	100%	47.0%	3.1%	0.7%	49.2%
Battle Creek City	53,540	15%	85%	41.1%	0.8%	1.0%	57.1%
Marshall City	6,941	0%	100%	52.8%	2.2%	1.0%	44.0%
Springfield City	5,582	0%	100%	48.2%	5.8%	2.9%	43.1%
Athens Village	990	0%	100%	68.0%	0.2%	0.5%	31.3%
Burlington Village	294	0%	100%	78.8%	0.0%	0.4%	20.8%
Homer Village	1,758	0%	100%	54.5%	0.6%	1.4%	43.5%
Tekonsha Village	722	0%	100%	67.8%	0.9%	0.9%	30.4%
Union City Village (Small Calhoun Portion)	7	0%	100%	NA	NA	NA	NA
Calhoun County	135,982	85%	15%	86.8%	0.1%	0.2%	12.9%
Notations & Sources							
* Village Pop. Deleted from Twp. Pop.	1990 Census	Generalized assessment of rural/urban character. CCCD		**%Of Economic Base** based on 1978 land use. 6/18/99			

* Ag = Agriculture; Ind = Industry; Com = Commercial; Oth = All Other Economic Bases

Calhoun County occupies 708.9 square miles of land. Local government units consist of nineteen (19) townships, four (4) villages, and four (4) cities.

EXECUTIVE SUMMARY

Calhoun County has one privately owned and operated landfill which is located in Convis Township just west of Interstate I-69. The landfill is currently located on 154 acres of the approximately 224 acres owned by Browning-Ferris Industries, Inc. This landfill receives approximately 3,497 cubic yards of solid waste per day. Calhoun County residents and businesses contribute approximately 44% of the total yearly disposal volume at the landfill. The remaining volume comes from adjacent Southwest and Mid-Michigan counties whom are recognized in the Primary Disposal Region, as discussed in Solid Waste Disposal Areas discussions, Chapter II & III. At the current rate of usage, the existing licensed and permitted landfill has a projected capacity of about seven years, with locally approved additional capacity totaling fourteen (14) years.

The County also has one large privately owned and operated transfer station. From this transfer station and others in neighboring counties solid waste originating in Calhoun County can be transported to any of the disposal facilities within the nineteen (19) counties authorized and recognized by this Plan to receive waste from Calhoun County for primary disposal.

Private solid waste haulers conduct virtually all the solid waste collection in the County. There are three municipal contracts for residential refuse collection in the County. The remainder of the residents has their waste collected on a subscription basis. All industrial and commercial businesses in the County choose their own waste services.

Recycling systems in the County divert approximately 80 tons per day of the County's total waste stream. At present, residential recycling is available to several communities at different levels of convenience and formality. The City of Battle Creek has the most formalized program in the County with both a curbside pickup program and drop-off center available.

CONCLUSIONS

It is the conclusion of this Plan, that the private sector should continue to play the dominant role in the County's solid waste management system. The public sector's roles are in the areas of regulation, education, and promotion of waste reduction and recycling.

In consideration of the State's Solid Waste Policy, Calhoun County has established the following targets for waste diversion:

	<u>5 Years</u>	<u>10 Years</u>
Reduction	1%	2%
Reuse	1%	2%
Composting	13%	15%
Recycling	15%	16%
Landfill	70%	65%

EXECUTIVE SUMMARY

SELECTED ALTERNATIVE

The designated planning agency and Calhoun County Solid Waste Management Planning Committee selected Alternative System No. 3, as described in Chapter II, for the Plan. The following summary defines components of this solid waste management system:

Resource Conservation Efforts

- County uses available resources to coordinate the implementation of County operated recycling and composting programs.
- County encourages cost-share programs and is open to alternative funding mechanisms that support resource recovery programs.

Volume Reduction Techniques

- Private sector responsible for this component.

Resource Recovery Programs

- Maintain County operated recycling and composting programs.
- Continue to encourage private sector curbside and drop-off recycling and composting programs.
- Continue to encourage commercial and industrial waste reduction and recycling efforts.

Collection Processes

- Private sector responsible for this component.

Transportation

- Private sector responsible for this component.

Disposal Areas

- County uses the C&C Landfill for the bulk of its waste; and out-of-county landfills accept a portion of its waste.
- County would remain open to potential new landfills for the long-term planning period.

Institutional Arrangements

- Encourage the establishment of volume related fees for disposal.
- Continue membership in the Southwest Michigan Solid Waste Consortium.

EXECUTIVE SUMMARY

Educational and Information Program

- Expand public education and information programs on waste reduction and recycling via the Solid Waste Specialist.
- Maintain County's Recycling Web Site for educational and informational purposes
- Generate fliers and news releases on local programs and environmental issues.

Capital, Operational, and Maintenance Costs

- Private sector responsible for their own programs.
- County programs subsidized by Solid Waste Management Fund and community sponsors.

EXECUTIVE SUMMARY

GOALS AND OBJECTIVES

The primary purpose of the goals and objectives stated in this Solid Waste Management Plan update are to identify and establish the direction of the County's efforts regarding solid waste management. Pursuant to Part 115 of P.A. 451, the goals and objectives stated in this section are based on the premise of two principals: (1) to help prevent adverse effects on the public health and on the environment resulting from improper solid waste collection, transportation, processing, and disposal; and (2) to utilize to the maximum extent possible the resources available in the County's solid waste stream through source reduction, source separation, and other means of resource recovery.

The following goals and objectives shall serve as a guideline for direction within the development of this Plan.

Goal 1: Decrease dependence on landfilling through increased recycling, composting, waste reduction, and reuse of the resources in the solid waste stream.

Objective 1.1 Continue to make available to County citizens an opportunity to participate in programs that recycle residential waste materials including paper, metal, glass, and plastic. In addition, the County will continue to encourage the collection of waste materials such as used tires, scrap appliances, and household hazardous wastes.

Objective 1.2 Promote the recovery of yard waste materials and other compostable wastes for the purpose of recycling by working with interested businesses and local units of government to promote exchanges between generators and users of the waste materials.

Objective 1.3 Target local businesses and industries with the objective of educating them about the benefits of integrated waste management systems, providing them with the assistance necessary to implement solid waste alternative programs.

Goal 2 Support the development of and provide opportunities for solid waste service improvements for County residents and businesses in order to maintain a high-quality living environment and to prevent adverse effects on the public health and the environment.

Objective 2.1 Promote coordination and cooperation between the public and private sectors regarding implementation of this Solid Waste Management Plan.

Objective 2.2 Provide model ordinances to be adopted and enforced by municipalities in the County that will protect the environment and prevent health risks.

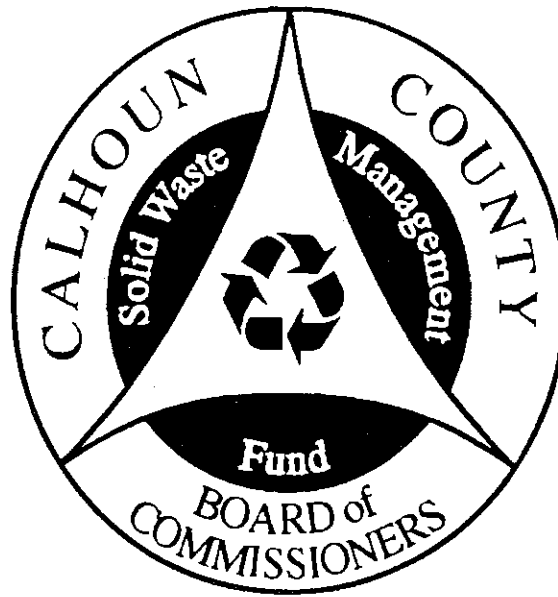
Objective 2.3 Maintain the County's household hazardous waste collection program and promote alternative programs that encourage diversion of hazardous waste from non-residential sources.

Goal 3 Promote environmental solid waste education and awareness within Calhoun County.

Objective 3.1 Maintain the County's Solid Waste Specialist position to assist local residents, municipalities, businesses, and industries to understand the benefits of waste reduction, recycling, and composting programs.

EXECUTIVE SUMMARY

- Objective 3.2** Work toward improving the County's solid waste management practices through educating the public as to the potential problems associated with the generation, collection, and disposal of solid waste.
- Objective 3.3** Develop, promote, and provide waste reduction, reuse, recycling, and composting information to schools, citizens, and businesses in the form of workshops, presentations, and published information



CHAPTER II DATA BASE

DATA BASE

Overall, the County does not anticipate major problems associated with managing the solid waste generated within its borders since there are several private waste haulers and disposal facilities that operate within the authorized import and export disposal region of the County. Among the seven (7) disposal facilities that currently serve the County, the average estimated lifetime is 16.7 years. If current trends in waste flows continue, the County will be able to certify greater than ten (10) years of disposal capacity. There are a number of other disposal facilities operating within the County's eighteen (18) county primary disposal region, as described in Chapter III, that may be used to provide additional disposal capacity to the County.

Based on the County's demographic projections, no steep increase in the number of residents choosing to reside within the County's borders over the next five (5) and ten (10) year planning periods is anticipated. However, it is expected that a larger number of people residing outside of the County will travel inside the County for employment. The number of industrial and commercial employees choosing to work within the County may increase at a rate of 4.5% every five (5) years with an overall increase of 19% by 2015. If this occurs, the disposal capacity available to the County is anticipated to be adequate to service this growth. If existing or new capacity is not available, the County may explore options of siting a new facility or consider expansion of the existing landfill facility, as described in this Plan. In either case, the County will need to encourage industrial and commercial businesses to develop and adopt more effective environmental management systems that target waste reduction and recycling.

Existing residential recycling systems in the County handle a combined estimate of 59,087 cubic yards of recycling and composting materials per year. Existing industrial and commercial recycling systems in the County handle an annual estimate of 19,151 cubic yards of recoverable preconsumer recyclable wastes.

Total Quantity of Solid Waste Generated (average): 580 Tons per Day

Total Quantity of Solid Waste Needing Disposal (average): 290 Tons per Day

SOURCES OF WASTE GENERATION

The following data represents estimated volumes of solid waste disposed of or handled in Calhoun County, based on reported population and employment information from the following sources: Southwest Michigan Recycling Market Development Strategy, Part II Background; Employment figures from the U.S. Census Bureau, 1991 County Business Patterns; and Employment projections from the U.S. Department of Commerce and the Battle Creek Area Transportation Study.

The reported waste generation data was calculated by the County's waste management staff using the following sources: Waste haulers operating within the County 1998; 1996, 1997 and 1998 Michigan Solid Waste Receipt Reports; and Michigan Landfills Report March 1997, as prepared by Oakland County. Waste generation conversions are as follow: Residential solid waste generated at a rate of 3.42 pounds per person per day; Commercial solid waste generated at a rate of 5.75 pounds per employee per day; and Industrial solid waste generated at a rate of 6.89 pounds per employee per day. This data assumes 365 days per year and three (3) cubic yards is equal to one (1) ton of waste.

Calhoun County Waste Generation Estimates By Year

Year	Residential		Commercial		Industrial		Total	Adjusted*
	Population	Waste Generated (cubic yards)	Commercial Employment	Waste Generated (cubic yards)	Industrial Employment	Waste Generated (cubic yards)	Waste Generated (cubic yards)	Total Waste Generated (cubic yards)
1995	141,963	265,819	26,125	82,245	10,586	39,933	387,997	634,575
2000	142,900	267,573	27,301	85,947	11,062	41,729	395,249	638,763
2005	144,400	270,382	28,529	89,813	11,560	43,607	403,802	645,468
2010	145,500	272,441	29,813	93,855	12,080	45,569	411,865	650,385
2015	146,400	274,127	31,155	98,080	12,624	47,621	419,828	654,408

Example Calculation

Residential Waste

$$\text{Generation 1995: } 141,963 \text{ pop.} \times \frac{3.42 \text{ lbs.}}{\text{day}} \times \frac{1 \text{ ton}}{2000 \text{ lbs.}} \times \frac{3 \text{ yards}}{1 \text{ ton}} \times \frac{365 \text{ days}}{1 \text{ year}} = \frac{265,819 \text{ yards}}{\text{year}}$$

* Adjusted to reflect three year average in County waste generation based on State report of Solid Waste Landfill in Michigan. Future years calculated using a waste generation factor of 4.47 per person.

DATA BASE

Solid Waste Disposal Areas Inventory

The following pages provide an inventory of all of the existing solid waste disposal facilities within the County or available to be utilized by the County to meet its needs for the planning period. Pages II-4 to II-29 contain detailed information about each of the disposal facilities that may be utilized by the County. Whenever necessary, tons were converted to cubic yards using the formula: 1 ton = 3 cubic yards.

TYPE II LANDFILLS

Adrian Landfill
Arbor Hills Landfill
Autumn Hills RDF
C&C Landfill
Forest Lawn Landfill
Granger #1
Granger #2
Hastings Sanitary Landfill
McGill Rd Landfill
Muskegon County Landfill
Orchard Hill Sanitary Landfill
Ottawa County Landfill
Pitsch Sanitary Landfill
S.E. Berrien County Landfill Authority
South Kent County Landfill
Westside Sanitary Landfill
White Lake Landfill

TYPE III LANDFILLS

Daggett Sand & Gravel
Crown Vantage
Kalamazoo Valley Group Landfill
Liberty Environmental Landfill
Sparta Foundry Waste Disposal
Westside Sanitary Landfill

WASTE-TO ENERGY

Jackson County Incinerator

TRANSFER FACILITIES

Cork Street Transfer Station (Kalamazoo Co.)
Miller Road Transfer Station (Kalamazoo Co.)
Waste Management, Inc. (Calhoun Co.)
Royal Holdings, Inc. (Kalamazoo Co.)

Additional facilities within the County may be utilized as they are sited by or amended into this Plan, if they have applicable permits and licenses and as they become available for disposal. Additional facilities located outside of the County and not recognized by the Plan may be utilized by the County, providing that they have applicable permits and licenses, the receiving county is authorized for export by this Plan, and the import is authorized in the receiving county's plan.

Any facility outside of Michigan that has not been identified in the above list may be utilized by the County for disposal of solid waste generated within the County if the facility is legally available for such use.

Letters from several of the disposal areas listed above stating their willingness to accept the County's solid waste, which will be used to certify 10 years of disposal capacity are included in Appendix D of this Plan.

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Adrian Landfill

County: Lenawee

Location: Town: 7-8S

Range: 4E

Section(s): 6&7

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Great Lakes Waste Services

Operating Status		Waste Types Received	
<u> X </u>	Open	<u> X </u>	Residential
<u> </u>	Closed	<u> X </u>	Commercial
<u> X </u>	Licensed	<u> X </u>	Industrial
<u> </u>	Unlicensed	<u> X </u>	Construction and Demolition
<u> </u>	Construction Permit	<u> X </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> X </u>	Special Wastes*
		<u> X </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions:
Asbestos and sludges per operating policy.

Site Size:

Total area of facility property:	<u>421</u>	Acres
Total area sited for use:	<u>287</u>	Acres
Total area permitted:	<u>40</u>	Acres
Operating:	<u>19</u>	Acres
Not excavated:	<u>20</u>	Acres

Current capacity:	<u>2,002,000</u>	Cubic Yards
Estimated lifetime:	<u>6.8</u>	Years
Estimated days open per year:	<u>307</u>	Days
Estimated yearly disposal volumes:	<u>293,193</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>20,148</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Arbor Hills Landfill

County: Washtenaw

Location: Town: 1S

Range: 7E

Section(s): 13

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Browning Ferris Industries, Inc.

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u> X </u>	Open	<u> X </u>	Residential
<u> </u>	Closed	<u> X </u>	Commercial
<u> X </u>	Licensed	<u> X </u>	Industrial
<u> </u>	Unlicensed	<u> X </u>	Construction and Demolition
<u> X </u>	Construction Permit	<u> X </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> X </u>	Special Wastes*
<u> </u>		<u> X </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions:

Incinerator ash, asbestos, foundry sand, wastewater sludge, trees and stumps.

Site Size:

Total area of facility property:	<u> 337 </u>	Acres
Total area sited for use:	<u> 217 </u>	Acres
Total area permitted:	<u> 217 </u>	Acres
Operating:	<u> 113 </u>	Acres
Not excavated:	<u> 104 </u>	Acres

Current capacity:	<u>61,500,000</u>	Cubic Yards
Estimated lifetime:	<u> 17.6 </u>	Years
Estimated days open per year:	<u> 264 </u>	Days
Estimated yearly disposal volumes:	<u>3,500,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u> 18 </u>	Megawatts
Waste-to-energy incinerators:	<u> NA </u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Autumn Hills Recycling & Disposal Facility

County: Ottawa

Location: Town: 5N

Range: 14W

Section(s): 36

Map identifying location included in Appendix D: X Yes No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Autumn Hills RFD-Division of Waste Management Inc -Michigan

Operating Status		Waste Types Received	
<u>X</u>	Open	<u>X</u>	Residential
<u> </u>	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
<u> </u>	Unlicensed	<u>X</u>	Construction and Demolition
<u>X</u>	Construction Permit	<u>X</u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u>X</u>	Special Wastes*
		<u> </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions:

Exhausted oak wood trays, minor first aid waste, contaminated pharmaceuticals manufacture, paint booth filters, dewatered waste water treatment sludge, out of spec/out of date food supplements, spent epoxy powder coatings, sand blasting sand, woodchips/dust from production, shot blast, foundry sand, filter press cake, incinerator ash, saw dust, auto fluff, asbestos, grinding sludge, carwash sand pit/traps, and food materials.

Site Size:

Total area of facility property:	<u>314</u>	Acres
Total area sited for use:	<u>197</u>	Acres
Total area permitted:	<u>99.3</u>	Acres
Operating:	<u>35.1</u>	Acres
Not excavated:	<u>64.2</u>	Acres

Current capacity:	<u>62,250,000</u>	Cubic Yards
Estimated lifetime:	<u>30.2</u>	Years
Estimated days open per year:	<u>286</u>	Days
Estimated yearly disposal volumes:	<u>1,500,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: C&C Landfill

County: Calhoun

Location: Town: 1S

Range: 6W

Section(s): 28

Map identifying location included in Appendix D: X Yes No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Browning-Ferris Industries of SE Michigan

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u>X</u>	Open	<u>X</u>	Residential
<u> </u>	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
<u> </u>	Unlicensed	<u>X</u>	Construction and Demolition
<u> </u>	Construction Permit	<u>X</u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u>X</u>	Special Wastes*
		<u>X</u>	Other: <u>Type III Wastes</u>

*Explanation of special wastes, including a specific list and/or conditions: Non-hazardous solid and semi-solid wastes; no hazardous or liquid wastes

Site Size:

Total area of facility property:	<u>224</u>	Acres
Total area sited for use:	<u>154</u>	Acres
Total area permitted:	<u>129</u>	Acres
Operating:	<u>33</u>	Acres
Not excavated:	<u>21</u>	Acres

Current capacity:	<u>7,570,000</u>	Cubic Yards
Estimated lifetime:	<u>7</u>	Years
Estimated days open per year:	<u>286</u>	Days
Estimated yearly disposal volumes:	<u>1,000,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>3</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

7 years = 26 acres +

*7 years = 16
14 years x 1 mile
= 14 Cff*

In accordance with this Plan and an amendment to the agreement between BFI and Calhoun County, the C&C Landfill is authorized to expand by 16 acres of refuse fill area in addition to the existing facility (See Appendix D). When combined with the existing available landfill space, this additional area will result in total capacity of 14,000,000 cubic yards and an estimated lifetime of fourteen (14) years.

The landfill and final elevation after closure shall be no higher than 1090 feet above sea level. Such final elevation shall be certified by a Michigan registered land surveyor or Michigan licensed engineer

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Forest Lawn Landfill

County: Berrien

Location: Town: 8S

Range: 20W

Section(s): 17

Map identifying location included in Appendix D: X Yes No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Forest Lawn Landfill, Inc.

Operating Status		Waste Types Received	
<u>X</u>	Open	<u>X</u>	Residential
<u> </u>	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
<u> </u>	Unlicensed	<u>X</u>	Construction and Demolition
<u> </u>	Construction Permit	<u> </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> </u>	Special Wastes*
		<u>X</u>	Other: fly ash, foundry sand, trees and stumps, wastewater sludge and asbestos

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	<u>284</u>	Acres
Total area sited for use:	<u>135</u>	Acres
Total area permitted:	<u>135</u>	Acres
Operating:	<u>26</u>	Acres
Not excavated:	<u>78</u>	Acres

Current capacity:	<u>15,900,000</u>	Cubic Yards
Estimated lifetime:	<u>15</u>	Years
Estimated days open per year:	<u>286</u>	Days
Estimated yearly disposal volumes:	<u>1,530,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Granger #1: Wood Street Landfill

County: Clinton
Ingham

Location: Town: 5N
4N

Range: NA
2W

Section(s): 34
3

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Granger Waste Management Company

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u> X </u>	Open	<u> X </u>	Residential
<u> </u>	Closed	<u> X </u>	Commercial
<u> X </u>	Licensed	<u> X </u>	Industrial
<u> </u>	Unlicensed	<u> X </u>	Construction and Demolition
<u> X </u>	Construction Permit	<u> X </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> X </u>	Special Wastes*
		<u> X </u>	Other: <u>Type III Wastes</u>

*Explanation of special wastes, including a specific list and/or conditions: N/A

Site Size:

Total area of facility property:	<u>302.8</u>	Acres
Total area sited for use:	<u>194.8</u>	Acres
Total area permitted:	<u>104.3</u>	Acres
Operating:	<u>49.5</u>	Acres
Not excavated:	<u>54.8</u>	Acres

Current capacity:	<u>10,981,000</u>	Cubic Yards
Estimated lifetime:	<u>34</u>	Years
Estimated days open per year:	<u>260</u>	Days
Estimated yearly disposal volumes:	<u>600,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>3.2</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Granger #2 Grand River Landfill

County: Clinton

Location: Town: 5N

Range: 3W

Section(s): 29

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Granger Waste Management Company

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u> X </u>	Open	<u> X </u>	Residential
<u> </u>	Closed	<u> X </u>	Commercial
<u> X </u>	Licensed	<u> X </u>	Industrial
<u> </u>	Unlicensed	<u> X </u>	Construction and Demolition
<u> X </u>	Construction Permit	<u> X </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> X </u>	Special Wastes*
		<u> X </u>	Other: <u>Type III Wastes</u>

*Explanation of special wastes, including a specific list and/or conditions: N/A

Site Size:

Total area of facility property:	<u>180.9</u>	Acres
Total area sited for use:	<u>120.9</u>	Acres
Total area permitted:	<u>85.7</u>	Acres
Operating:	<u>54.1</u>	Acres
Not excavated:	<u>31.6</u>	Acres

Current capacity:	<u>7,617,000</u>	Cubic Yards
Estimated lifetime:	<u>32</u>	Years
Estimated days open per year:	<u>300</u>	Days
Estimated yearly disposal volumes:	<u>600,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>4.0</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Hastings Sanitary Service

City Environmental Services Landfill, Inc. of Hastings (CESLH)

County: Barry

Location: Town: 3W

Range: 8N

Section(s): 6

Map identifying location included in Appendix D: X Yes No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: City Management Corporation

Operating Status		Waste Types Received	
<u>X</u>	Open	<u>X</u>	Residential
<u> </u>	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
<u> </u>	Unlicensed	<u>X</u>	Construction and Demolition
<u>X</u>	Construction Permit	<u>X</u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u>X</u>	Special Wastes*
<u> </u>		<u>X</u>	Other: <u>Type III Wastes</u>

*Explanation of special wastes, including a specific list and/or conditions:

Foundry Sand, Fly Ash, Waste Water Sludge, Trees & Stumps.

Site Size:

Total area of facility property:	<u>330</u>	Acres
Total area sited for use:	<u>330</u>	Acres
Total area permitted:	<u>48</u>	Acres
Operating:	<u>19.5</u>	Acres
Not excavated:	<u>28.5</u>	Acres

Current capacity:	<u>5,000,000</u>	Cubic Yards
Estimated lifetime:	<u>23+</u>	Years
Estimated days open per year:	<u>308</u>	Days
Estimated yearly disposal volumes:	<u>525,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Resource Recovery Facility

Facility Name: McGill Road Landfill (Jackson County Resource Recovery Facility)

County: Jackson

Location: Town: 2S

Range: 1W

Section(s): 24

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Waste Management, Inc.

Operating Status		Waste Types Received	
<u> X </u>	Open	<u> X </u>	Residential
<u> </u>	Closed	<u> X </u>	Commercial
<u> X </u>	Licensed	<u> X </u>	Industrial
<u> </u>	Unlicensed	<u> X </u>	Construction and Demolition
<u> </u>	Construction Permit	<u> X </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> X </u>	Special Wastes*
		<u> </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions: Incinerator Ash

Site Size:

Total area of facility property:	<u>50.5</u>	Acres
Total area sited for use:	<u>41.8</u>	Acres
Total area permitted:	<u>18.7</u>	Acres
Operating:	<u>7.8</u>	Acres
Not excavated:	<u>17.5</u>	Acres

Current capacity:	<u>1,236,300</u>	Cubic Yards
Estimated lifetime:	<u>15</u>	Years
Estimated days open per year:	<u>310</u>	Days
Estimated yearly disposal volumes:	<u>63,226</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Muskegon County Landfill

County: Muskegon

Location: Town: 10N

Range: 14W

Section(s): 19&20

Map identifying location included in Appendix D: ☐ Yes ☒ No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

☐ Public ☒ Private Owner: Muskegon County Board of Public Works

Operating Status		Waste Types Received	
<input checked="" type="checkbox"/>	Open	<input checked="" type="checkbox"/>	Residential
<input type="checkbox"/>	Closed	<input checked="" type="checkbox"/>	Commercial
<input checked="" type="checkbox"/>	Licensed	<input checked="" type="checkbox"/>	Industrial
<input type="checkbox"/>	Unlicensed	<input checked="" type="checkbox"/>	Construction and Demolition
<input checked="" type="checkbox"/>	Construction Permit	<input checked="" type="checkbox"/>	Contaminated Soils
<input type="checkbox"/>	Open, But Closure Pending	<input type="checkbox"/>	Special Wastes*
<input type="checkbox"/>		<input type="checkbox"/>	Other:

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	120	Acres
Total area sited for use:	93	Acres
Total area permitted:	93	Acres
Operating:	34.3	Acres
Not excavated:	32.7	Acres

Current capacity:	2,683,440	Cubic Yards
Estimated lifetime:	14	Years
Estimated days open per year:	312	Days
Estimated yearly disposal volumes:	195,000	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	NA	Megawatts
Waste-to-energy incinerators:		Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Orchard Hill Landfill

County: Berrien

Location: Town: 3S

Range: 7W

Section(s): 28 & 29

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

Public X Private Owner: Mennesey Land Company

Operating Status		Waste Types Received	
<u>X</u>	Open	<u>X</u>	Residential
	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
	Unlicensed	<u>X</u>	Construction and Demolition
	Construction Permit		Contaminated Soils
	Open, But Closure Pending		Special Wastes*
		<u>X</u>	Other: <u>Type III Wastes</u>

* Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	<u>160</u>	Acres
Total area sited for use:	<u>117</u>	Acres
Total area permitted:	<u>160</u>	Acres
Operating:	<u>53</u>	Acres
Not excavated:	<u>64</u>	Acres

Current capacity:	<u>8,000,000</u>	Cubic Yards
Estimated lifetime:	<u>10+</u>	Years
Estimated days open per year:	<u>NA</u>	Days
Estimated yearly disposal volumes:	<u>402,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Ottawa County Farms

County: Ottawa

Location: Town: 8N

Range: 14W

Section(s): 26 & 27

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Allied Waste Systems Inc., Michigan

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u> X </u>	Open	<u> X </u>	Residential
<u> </u>	Closed	<u> X </u>	Commercial
<u> X </u>	Licensed	<u> X </u>	Industrial
<u> </u>	Unlicensed	<u> </u>	Construction and Demolition
<u> X </u>	Construction Permit	<u> X </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> </u>	Special Wastes*
<u> </u>		<u> </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	<u> 314 </u>	Acres
Total area sited for use:	<u> 197 </u>	Acres
Total area permitted:	<u> 99.3 </u>	Acres
Operating:	<u> 37 </u>	Acres
Not excavated:	<u> 125 </u>	Acres

Current capacity:	<u> 49,500,000 </u>	Cubic Yards
Estimated lifetime:	<u> 25-30 </u>	Years
Estimated days open per year:	<u> 286 </u>	Days
Estimated yearly disposal volumes:	<u> 1,500,000 </u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u> 4,565 </u>	Megawatts
Waste-to-energy incinerators:	<u> NA </u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Pitsch Sanitary Landfill

County: Ionia

Location: Town: 8N

Range: 7W

Section(s): 7

Map identifying location included in Appendix D: X Yes No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Pitsch Companies

Operating Status		Waste Types Received	
<u> X </u>	Open	<u> X </u>	Residential
<u> </u>	Closed	<u> X </u>	Commercial
<u> X </u>	Licensed	<u> </u>	Industrial
<u> </u>	Unlicensed	<u> X </u>	Construction and Demolition
<u> </u>	Construction Permit	<u> X </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> X </u>	Special Wastes*
		<u> </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions:

Street Sweepings, Asbestos

Site Size:

Total area of facility property:	<u>143.5</u>	Acres
Total area sited for use:	<u>28.36</u>	Acres
Total area permitted:	<u>78.44</u>	Acres
Operating:	<u>9.87</u>	Acres
Not excavated:	<u>70</u>	Acres

Current capacity:	<u>415,000</u>	Cubic Yards
Estimated lifetime:	<u>5</u>	Years
Estimated days open per year:	<u>307</u>	Days
Estimated yearly disposal volumes:	<u>83,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Southeast Berrien Landfill

County: Berrien

Location: Town: 8S

Range: 7W

Section(s): 6

Map identifying location included in Appendix D: X Yes No

X Public Private Owner: Southeast Berrien County Landfill Authority, Inc.

Operating Status		Waste Types Received	
<u>X</u>	Open	<u>X</u>	Residential
<u> </u>	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
<u> </u>	Unlicensed	<u>X</u>	Construction and Demolition
<u> </u>	Construction Permit	<u>X</u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u>X</u>	Special Wastes*
<u> </u>		<u>X</u>	Other:

*Explanation of special wastes, including a specific list and/or conditions:

Foundry Sand, Fly Ash, Wastewater Sludges, Asbestos, and Auto Shredder Residue (auto fluff)

Site Size:

Total area of facility property:	<u>160</u>	Acres
Total area sited for use:	<u>100</u>	Acres
Total area permitted:	<u>39</u>	Acres
Operating:	<u>27.5</u>	Acres
Not excavated:	<u>5.5</u>	Acres

Current capacity:	<u>5,000,000</u>	Cubic Yards
Estimated lifetime:	<u>16.7</u>	Years
Estimated days open per year:	<u>281</u>	Days
Estimated yearly disposal volumes:	<u>800,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: South Kent County Landfill

County: Kent

Location: Town: 5N

Range: 12W

Section(s): 36

Map identifying location included in Appendix D: ☐ Yes ☒ No

☒ Public ☐ Private Owner: Kent County

Operating Status		Waste Types Received	
<input checked="" type="checkbox"/>	Open	<input checked="" type="checkbox"/>	Residential
<input type="checkbox"/>	Closed	<input checked="" type="checkbox"/>	Commercial
<input checked="" type="checkbox"/>	Licensed	<input checked="" type="checkbox"/>	Industrial
<input type="checkbox"/>	Unlicensed	<input checked="" type="checkbox"/>	Construction and Demolition
<input checked="" type="checkbox"/>	Construction Permit	<input checked="" type="checkbox"/>	Contaminated Soils
<input type="checkbox"/>	Open, But Closure Pending	<input type="checkbox"/>	Special Wastes*
		<input checked="" type="checkbox"/>	Other: Incinerator Ash

*Explanation of special wastes, including a specific list and/or conditions: N/A

Site Size:

Total area of facility property:

250 Acres

Total area sited for use:

112 Acres

Total area permitted:

112 Acres

Operating:

31 Acres

Not excavated:

81 Acres

Current capacity:

7,600,000 Cubic Yards

Estimated lifetime:

38 Years

Estimated days open per year:

310 Days

Estimated yearly disposal volumes

155,000 Cubic Yards

Annual energy production:

NA

Landfill gas recovery projects:

Megawatts

Waste-to-energy incinerators:

Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: Westside Landfill

County: St. Joseph

Location: Town: 6S

Range: 12W

Section(s): 26

Map identifying location included in Appendix D: X Yes No

 Public X Private Owner: Waste Management of Michigan, Inc.

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u>X</u>	Open	<u>X</u>	Residential
<u> </u>	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
<u> </u>	Unlicensed	<u>X</u>	Construction and Demolition
<u> </u>	Construction Permit	<u>X</u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u>X</u>	Special Wastes*
			Other: <u> </u>

*Explanation of special wastes, including a specific list and/or conditions:

Foundry Sand, Fly Ash, Wastewater Sludges, Trees and Stumps, and Asbestos

Site Size:

Total area of facility property:	<u>640</u>	Acres
Total area sited for use:	<u>490</u>	Acres
Total area permitted:	<u>85</u>	Acres
Operating:	<u>85</u>	Acres
Not excavated:	<u>0</u>	Acres

Current capacity:	<u>14,790,000</u>	Cubic Yards
Estimated lifetime:	<u>12</u>	Years
Estimated days open per year:	<u>300+</u>	Days
Estimated yearly disposal volumes:	<u>1,200,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type II Landfill

Facility Name: White Lake Landfill

County: Muskegon

Location: Town: 12N

Range: 17W

Section(s): 27

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Waste Management, Inc.

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u> </u>	Open	<u> X </u>	Residential
<u> </u>	Closed	<u> X </u>	Commercial
<u> </u>	Licensed	<u> X </u>	Industrial
<u> </u>	Unlicensed	<u> X </u>	Construction and Demolition
<u> </u>	Construction Permit	<u> X </u>	Contaminated Soils
<u> X </u>	Open, But Closure Pending	<u> </u>	Special Wastes*
		<u> </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	<u> 97 </u>	Acres
Total area sited for use:	<u> 97 </u>	Acres
Total area permitted:	<u> 34 </u>	Acres
Operating:	<u> 18.45 </u>	Acres
Not excavated:	<u> 10 </u>	Acres

Current capacity:	<u> NA </u>	Cubic Yards
Estimated lifetime:	<u> 1 </u>	Years
Estimated days open per year:	<u> 312 </u>	Days
Estimated yearly disposal volumes:	<u>500,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u> NA </u>	Megawatts
Waste-to-energy incinerators:	<u> </u>	Megawatts

At the time of writing this Plan, this landfill is not operating. Should the landfill begin operations again, so long as it is licensed and permitted, it shall be authorized to receive Calhoun County's waste. However, capacity at this landfill is not needed to certify ten years of disposal capacity for Calhoun County.

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Waste-to-Energy Incinerator

Facility Name: Jackson County Resource Recovery Facility

County: Jackson

Location: Town: 2S

Range: NA

Section(s): 14

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes: McGill Road Landfill

 X Public Private Owner: Jackson County

Operating Status

<u> X </u>	Open
<u> </u>	Closed
<u> X </u>	Licensed
<u> </u>	Unlicensed
<u> </u>	Construction Permit
<u> </u>	Open, But Closure Pending

Waste Types Received

<u> X </u>	Residential
<u> X </u>	Commercial
<u> </u>	Industrial
<u> </u>	Construction and Demolition
<u> </u>	Contaminated Soils
<u> </u>	Special Wastes*
<u> </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	<u> NA </u>	Acres
Total area sited for use:	<u> NA </u>	Acres
Total area permitted:	<u> NA </u>	Acres
Operating:	<u> NA </u>	Acres
Not excavated:	<u> NA </u>	Acres

Current capacity:	<u> 73,000 </u>	Tons
Estimated lifetime:	<u> 20 </u>	Years
Estimated days open per year:	<u> 365 </u>	Days
Estimated yearly disposal volumes:	<u> 59,807 </u>	Tons

Annual energy production:

Landfill gas recovery projects:	<u> NA </u>	Megawatts
Waste-to-energy incinerators:	<u> 15,138 </u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Crown Vantage

County: Kalamazoo

Location: Town: 1S

Range: 11W

Section(s): 34

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Crown Paper Company

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u> X </u>	Open	<u> </u>	Residential
<u> </u>	Closed	<u> </u>	Commercial
<u> X </u>	Licensed	<u> </u>	Industrial
<u> </u>	Unlicensed	<u> </u>	Construction and Demolition
<u> </u>	Construction Permit	<u> </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> </u>	Special Wastes*
		<u> X </u>	Other: Paper Waste Residuals

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	<u> NA </u>	Acres
Total area sited for use:	<u> 32.8 </u>	Acres
Total area permitted:	<u> 31.4 </u>	Acres
Operating:	<u> 8 </u>	Acres
Not excavated:	<u> NA </u>	Acres

Current capacity:	<u> NA </u>	Cubic Yards
Estimated lifetime:	<u> NA </u>	Years
Estimated days open per year:	<u> 365 </u>	Days
Estimated yearly disposal volumes:	<u> 200,000 </u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u> NA </u>	Megawatts
Waste-to-energy incinerators:	<u> NA </u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Kalamazoo Valley Group Landfill

County: Kalamazoo

Location: Town: 2S

Range: 9W

Section(s): 29

Map identifying location included in Appendix D: ☒ Yes ☐ No

☐ Public ☒ Private Owner: Kalamazoo Valley Group

Operating Status

☒ Open
☐ Closed
☒ Licensed
☐ Unlicensed
☐ Construction Permit
☐ Open, But Closure Pending

Waste Types Received

☐ Residential
☐ Commercial
☐ Industrial
☐ Construction and Demolition
☐ Contaminated Soils
☒ Special Wastes*
☐ Other:

*Explanation of special wastes, including a specific list and/or conditions:

Paper Waste Residuals and Coal Ash

Site Size:

Total area of facility property:	200.9	acres
Total area sited for use:	80	acres
Total area permitted:	10	acres
Operating:	8	acres
Not excavated:	23.4	acres
Current capacity:	8,200,000	cubic yards
Estimated lifetime:	33	years
Estimated days open per year:	312	days
Estimated yearly disposal volumes	250,000	cubic yards

Annual energy production:

Landfill gas recovery projects:	NA	Megawatts
Waste-to-energy incinerators:		Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Liberty Environmentalist, Inc.

County: Jackson

Location: Town: NA

Range: NA

Section(s): NA

Map identifying location included in Appendix D: X Yes No

 Public X Private Owner: Liberty Environmentalist, Inc.

Operating Status

X Open
 Closed
X Licensed
 Unlicensed
 Construction Permit
 Open, But Closure Pending

Waste Types Received

X Residential
X Commercial
X Industrial
X Construction and Demolition
X Contaminated Soils
X Special Wastes*
X Other: Grass, Leaves, and Brush

*Explanation of special wastes, including a specific list and/or conditions:

Foundry Sand and Shredded Fluff

Site Size:

Total area of facility property:

220 Acres

Total area sited for use:

55 Acres

Total area permitted:

15 Acres

Operating:

15 Acres

Not excavated:

40 Acres

Current capacity:

400,000 Cubic Yards

Estimated lifetime:

25 Years

Estimated days open per year:

300 Days

Estimated yearly disposal volumes:

165,000 Cubic Yards

Annual energy production:

Landfill gas recovery projects:

NA Megawatts

Waste-to-energy incinerators:

NA Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Sparta Foundry Waste Disposal Facility

County: Kent

Location: Town: 9N

Range: 12W

Section(s): 28

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: AE Goetze

Operating Status

<u> X </u>	Open
<u> </u>	Closed
<u> X </u>	Licensed
<u> </u>	Unlicensed
<u> </u>	Construction Permit
<u> </u>	Open, But Closure Pending

Waste Types Received

<u> </u>	Residential
<u> </u>	Commercial
<u> </u>	Industrial
<u> </u>	Construction and Demolition
<u> </u>	Contaminated Soils
<u> X </u>	Special Wastes*
<u> </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions: Foundry Sand

Site Size:

Total area of facility property:	<u> 71 </u>	Acres
Total area sited for use:	<u> 25 </u>	Acres
Total area permitted:	<u> 8.75 </u>	Acres
Operating:	<u> .75 </u>	Acres
Not excavated:	<u> 4.3 </u>	Acres

Current capacity:	<u> 120,000 </u>	Cubic Yards
Estimated lifetime:	<u> 12 </u>	Years
Estimated days open per year:	<u> 245 </u>	Days
Estimated yearly disposal volumes:	<u> 10,000 </u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u> NA </u>	Megawatts
Waste-to-energy incinerators:	<u> NA </u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Type III Landfill

Facility Name: Daggett Sand & Gravel

County: Ingham

Location: Town: Lansing

Range:

Section(s): 3

Map identifying location included in Appendix D: Yes X No

If facility is an incinerator or transfer station, list the final disposal site and location for incinerator ash or transfer station wastes:

 Public X Private Owner: Daggett Sand & Gravel

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u> X </u>	Open	<u> </u>	Residential
<u> </u>	Closed	<u> </u>	Commercial
<u> X </u>	Licensed	<u> </u>	Industrial
<u> </u>	Unlicensed	<u> X </u>	Construction and Demolition
<u> </u>	Construction Permit	<u> </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> </u>	Special Wastes*
		<u> </u>	Other:

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:

 10 Acres

Total area sited for use:

 6.4 Acres

Total area permitted:

 6.4 Acres

Operating:

 2-3 Acres

Not excavated:

 4.3 Acres

Current capacity:

 60,000 Cubic Yards

Estimated lifetime:

 7 Years

Estimated days open per year:

 250 Days

Estimated yearly disposal volumes:

 7,500 Cubic Yards

Annual energy production:

Landfill gas recovery projects:

 NA Megawatts

Waste-to-energy incinerators:

 NA Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Transfer Station

Facility Name: Cork Street Transfer Station

County: Kalamazoo

Location: Town: 2S

Range: 11W

Section(s): 36

Map identifying location included in Appendix D: X Yes No

The Cork Street Transfer Station uses the C&C Landfill located in Calhoun County for final disposal of wastes collected and processed at the facility

 Public X Private Owner: BFI Waste Systems of Michigan, Inc.

<u>Operating Status</u>		<u>Waste Types Received</u>	
<u>X</u>	Open	<u>X</u>	Residential
<u> </u>	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
<u> </u>	Unlicensed	<u>X</u>	Construction and Demolition
<u> </u>	Construction Permit	<u> </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> </u>	Special Wastes*
<u> </u>		<u> </u>	Other: <u> </u>

*Explanation of special wastes, including a specific list and/or conditions: N/A

Site Size:

Total area of facility property:	<u>8</u>	Acres
Total area sited for use:	<u>2.758</u>	Acres
Total area permitted:	<u>NA</u>	Acres
Operating:	<u>NA</u>	Acres
Not excavated:	<u>NA</u>	Acres

Current capacity:	<u>NA</u>	Cubic Yards
Estimated lifetime:	<u>>10</u>	Years
Estimated days open per year:	<u>300</u>	Days
Estimated yearly disposal volumes:	<u>NA</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Transfer Station

Facility Name: Miller Road Transfer Station

County: Kalamazoo

Location: Town: 2S

Range: 11W

Section(s): 25

Map identifying location included in Appendix D: X Yes No

The Miller Road Transfer Station uses the Orchard Hill Sanitary Landfill located in Berrien County for final disposal of wastes collected and processed at the facility.

 Public X Private Owner: Landfill Management Company

Operating Status

<u> X </u>	Open
<u> </u>	Closed
<u> X </u>	Licensed
<u> </u>	Unlicensed
<u> </u>	Construction Permit
<u> </u>	Open, But Closure Pending

Waste Types Received

<u> X </u>	Residential
<u> X </u>	Commercial
<u> X </u>	Industrial
<u> X </u>	Construction and Demolition
<u> </u>	Contaminated Soils
<u> </u>	Special Wastes*
<u> </u>	Other: _____

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:

 1+ Acres

Total area sited for use:

 NA Acres

Total area permitted:

 NA Acres

Operating:

 NA Acres

Not excavated:

 NA Acres

Current capacity:

 NA Cubic Yards

Estimated lifetime:

 >10 Years

Estimated days open per year:

 312 Days

Estimated yearly disposal volumes:

 NA Cubic Yards

Annual energy production:

Landfill gas recovery projects:

 NA Megawatts

Waste-to-energy incinerators:

 NA Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Transfer Station

Facility Name: Royal Holdings, Inc.

County: Kalamazoo

Location: Town: 2S

Range: 11W

Section(s): 36

Map identifying location included in Appendix D: X Yes No

The Royal Holdings, Inc. transfer station uses the Southeast Berrien County Landfill located in Berrien County and the Orchard Hills Landfill located in Berrien County for final disposal of wastes collected and processed at the facility.

 Public X Private Owner: Tri-City Recycling and Disposal

Operating Status		Waste Types Received	
<u>X</u>	Open	<u>X</u>	Residential
<u> </u>	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
<u> </u>	Unlicensed	<u>X</u>	Construction and Demolition
<u> </u>	Construction Permit	<u> </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> </u>	Special Wastes*
<u> </u>		<u> </u>	Other: <u> </u>

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:	<u>8</u>	Acres
Total area sited for use:	<u>NA</u>	Acres
Total area permitted:	<u>NA</u>	Acres
Operating:	<u>NA</u>	Acres
Not excavated:	<u>NA</u>	Acres

Current capacity:	<u>NA</u>	Cubic Yards
Estimated lifetime:	<u>>10</u>	Years
Estimated days open per year:	<u>312</u>	Days
Estimated yearly disposal volumes:	<u>175,000</u>	Cubic Yards

Annual energy production:

Landfill gas recovery projects:	<u>NA</u>	Megawatts
Waste-to-energy incinerators:	<u>NA</u>	Megawatts

DATA BASE

FACILITY DESCRIPTIONS

Facility Type: Transfer Station

Facility Name: Waste Management Transfer Station

County: Calhoun

Location: Town: 2S

Range: 8W

Section(s): 5

Map identifying location included in Appendix D: X Yes No

The Waste Management Transfer Station uses the Westside Landfill located in St. Joseph County for final disposal of wastes collected and processed at the facility.

 Public X Private Owner: Waste Management of Michigan, Inc.

Operating Status		Waste Types Received	
<u>X</u>	Open	<u>X</u>	Residential
<u> </u>	Closed	<u>X</u>	Commercial
<u>X</u>	Licensed	<u>X</u>	Industrial
<u> </u>	Unlicensed	<u>X</u>	Construction and Demolition
<u> </u>	Construction Permit	<u> </u>	Contaminated Soils
<u> </u>	Open, But Closure Pending	<u> </u>	Special Wastes*
<u> </u>		<u>X</u>	Other: Trees and Stumps _____

*Explanation of special wastes, including a specific list and/or conditions:

Site Size:

Total area of facility property:

18.36 Acres

Total area sited for use:

NA Acres

Total area permitted:

NA Acres

Operating:

NA Acres

Not excavated:

NA Acres

Current capacity:

NA Cubic Yards

Estimated lifetime:

>10 Years

Estimated days open per year:

310 Days

Estimated yearly disposal volumes:

300,000 Cubic Yards

Annual energy production:

Landfill gas recovery projects:

NA Megawatts

Waste-to-energy incinerators:

NA Megawatts

DATA BASE

SOLID WASTE COLLECTION SERVICES AND TRANSPORTATION INFRASTRUCTURE

All solid waste generated in Calhoun County from residents, businesses, and industries is collected by private waste hauling companies, except for some instances of private or public parties who transport their own waste directly to a disposal facility. In 1998, fourteen (14) private solid waste haulers were known to operate within the County. Table II-1 lists the waste haulers who have collection services available in various areas of the County. In addition, the County is aware of three operators of privately owned collection trucks that collect residential waste in the Albion area.

The Cities of Battle Creek and Springfield, and the Village of Tekonsha are the only municipalities within the County that are currently being serviced through a standardized residential refuse pick-up. For these communities, each residential housing unit is serviced by one private waste hauler which is contracted for by the municipality. All other residences, businesses, and industries in the County individually subscribe or contract for services with one of the private waste haulers for the collection, transportation, and disposal of their solid waste.

The existing solid waste collection system operates effectively for the collection, transportation, processing, and disposal needs of the County while minimizing adverse effects on the public health and the environment.

It shall be noted that the purpose of Table II-1 is not intended to limit or to regulate the waste haulers who can operate within Calhoun County. Any waste hauler who would like to provide collection services within Calhoun County may do so, providing the counties in which the transportation, processing, and final disposal of the wastes will take place are explicitly authorized by this Plan. Authorized exportation of waste originating in Calhoun County is described in detail in Chapter III of the Plan.

DATA BASE

**Table II-1
Collection Services In Calhoun County**

Cities & Villages	BH	City Management	Containerized Disposal	Faber & Son	Kipp/Refuse	Liberty Environmental	Marshall Disposal	Reliable Refuse	Sherrod/Refuse	Ti-City	Waste Management	Payment
Albion	X			X	X	X					X	Customer
Athens	X			X	X	X					X	Customer
Battle Creek	X	X	X	X	X	X			X	X	X	City Bill
Burlington	X			X	X	X		X			X	Customer
Homer	X			X		X					X	Customer
Marshall	X	X	X	X	X	X	X				X	Customer
Springfield	X	X	X	X	X	X				X	X	City Bill
Tekonsha	X			X	X	X					X	Village Tax
Townships												
Albion	X			X	X	X					X	Customer
Athens	X			X	X	X					X	Customer
Bedford	X	X	X	X	X	X			X	X	X	Customer
Burlington	X			X	X	X					X	Customer
Clarence	X			X		X					X	Customer
Clarendon	X			X		X					X	Customer
Convis	X	X	X	X	X	X					X	Customer
Eckford	X			X	X	X					X	Customer
Emmett	X	X	X	X	X	X	X		X	X	X	Customer
Fredonia	X	X		X	X	X					X	Customer
Homer	X			X		X					X	Customer
Lee	X			X		X					X	Customer
Leroy	X	X		X	X	X					X	Customer
Marengo	X	X	X	X	X	X	X				X	Customer
Marshall	X	X	X	X	X	X	X				X	Customer
Newton	X	X		X	X	X					X	Customer
Pennfield	X	X	X	X	X	X			X	X	X	Customer
Sheridan	X			X	X	X					X	Customer
Tekonsha	X			X	X	X					X	Customer
Disposal Facility	C&C Landfill	Hastings Sanitary	C&C Landfill	C&C Landfill	C&C Landfill	Liberty Environmental	C&C Landfill	C&C Landfill	Hastings Sanitary/ C&C Landfill	SE Berrien/ Orchard Hills	Westside Landfill	

DATA BASE

EVALUATION OF DEFICIENCIES AND PROBLEMS

During the prior five-year planning period, 1993 to 1998, Calhoun County's landfill disposal needs were serviced by two disposal facilities (C&C Landfill and Westside Landfill). In the 1993 Plan, these two facilities provided the County with sufficient disposal capacity for all solid waste originating within the County. In 1998, the County amended its 1993 Solid Waste Plan to authorize export to eighteen (18) counties. The amendment allowed the following to take place:

1. Local independent waste haulers received more options and opportunities for service, price, and cooperative working conditions between the owners/operators of landfill disposal facilities.
2. The County increased the amount of available landfill capacity while allowing new service providers and programs to enter the County.
3. The County removed a barrier that restricted the potential growth in the waste collection, processing and transportation infrastructure, and opportunities for enhancing an overall integrated waste management system.

In this planning period of the 1999 Solid Waste Management Plan, the County chooses to promote an even flow of waste import and export between selected counties in the region. The County, however, will continue to address many of the same challenges as in the prior five-year planning period.

Public Awareness and Education Efforts

Promotional efforts to inform citizens of new and existing programs and educational efforts to enhance the general understanding of the subject have only recently been pursued. Through the development of the County's Solid Waste Specialist position, more and more emphasis is being placed on the development of these initiatives.

Recycling Advancement

Three communities in the County, the Cities of Battle Creek & Springfield, and the Village of Tekonsha, have standard contracts with private haulers for the collection of recycling and yard-waste materials. The remainder of the County is provided recycling and yard-waste services through individual subscriptions or drop-off collection sites. Other deficiencies and problems for recycling advancement include:

1. A separate recycling charge to customers to provide curbside collection discourages new subscribers.
2. The availability of recycling opportunities through the private sector is not wide-spread and may be declining.
3. The County's cost to provide drop-off collection sites and to operate compost centers is not financially self-sustaining through donations and material revenue.

Recycling Opportunities In Rural Areas

Many areas within the County are rural and sparsely populated. The number of subscribers and the economical feasibility to provide recycling services may not be practical. For many of the people living in these areas of the County, the only opportunity for recycling exists through centralized drop-off collection centers.

Illegal Dumping

Problems exist with illegal dumping in isolated areas throughout the County. The enforcement of laws against illegal dumping continues to be a difficult challenge. A County-wide illegal dumping prevention program will need to be established in the near future. Coordination of this type of effort will need to include the involvement of citizens, organizations, businesses, and local, county, and state officials.

DATA BASE

Household Hazardous Waste (HHW) Collections

1. The County's HHW program can only serve a limited number of households.
2. Four household hazardous waste collections per year does not meet residents' needs for immediate disposal.
3. The County's HHW program receives less than one percent participation of County residents, while costs to the County typically exceed \$30,000 per year
4. The HHW program can not accept Conditionally Exempt Small Quantity Generator¹ Hazardous Waste, in which the disposal of this waste is unknown. Collection from these businesses may need to be pursued in the future.

Financing Programs

Through an agreement between the County and C&C Landfill, a 3% surcharge is paid on each cubic yard of material accepted at the facility. The money is designated to the County's Solid Waste Management Fund and used for improving the overall solid waste management system of the County. Presently, about 85% of this money is used to support solid waste planning, programs, and education. The other 15% is held in reserve for future solid waste activities. This source of revenue is not a long-term solution for financing programs and will need to be replaced with more permanent long-term funding options.

Business Sector Involvement

Responsibility for waste disposal, reuse, and recycling within the business community may include:

1. Development of backhauling and return programs to customers.
2. Waste minimization efforts for shipping and packaging wastes.
3. Public collection for recycling or disposal of selected wastes.
4. Monetary and in-kind contributions to public programs.
5. Internal promotion of awareness and education about waste reduction.

Construction And Demolition Waste

Minimum effort has taken place within the County for the recovery of Type III construction and demolition waste materials. A large portion of these wastes have been added to the municipal waste collection, which increases the County's Type II generation volume.

¹ Conditionally Exempt Small Quantity Generator is a generator of hazardous waste that meets the special requirements for conditionally exempt status as defined under the Federal 40 Code of Regulations Part 261.

DATA BASE

DEMOGRAPHICS

Current and Projected Population:

An understanding of current and projected levels of population is essential in determining expected quantities of domestically generated solid waste. Table II-2 on pages II-35-II-36 shows the local governmental population projections based on the estimated County population change from 1990 to 1996. Table II-3 shows projections for 1970 through 2020 for the County and selected southwest and southcentral Michigan counties which were done in 1985 by the Michigan Department of Management and Budget.

The 1996 estimated population of the County was 140,112, with the City of Battle Creek and the surrounding communities of Bedford, Emmett, Pennfield, and the City of Springfield contributing 65%, or 90,513, of the County's total population. The City of Albion constituted 7%, or 9,884, and the City of Marshall constituted 5%, or 7,251, of the County's total population. The 1996 population estimate would indicate that the County has experienced a 3% increase in population. Since the 1990 census, this is a significant departure from the 4% population loss between 1970 and 1990.

Most rural and urban communities experienced moderate population decrease between 1980 and 1990. The cities and villages overall in this period lost (-5.3%) somewhat more than the townships (-1.9%). The Athens community (village and township) was one notable exception with +10.7% growth.

Since 1990, most local governmental units experienced slight to moderate population growth, with the exception of the Cities of Albion and Battle Creek, which experienced a slight loss. The cities and villages overall were almost unchanged (0.4%). The townships by comparison had average township growth of 6.8%.

New residential and commercial growth appears to be largely occurring beyond the corporate limits of villages and cities. In the countryside, the trend of larger and fewer farms has been largely offset by rural residential development, which included individual home sites, manufactured or mobile home developments, and some residential condominiums or subdivisions.

The net effect of this pattern of population growth in the County is a trend of lower population density.

Population Densities:

The population densities for the local communities, Calhoun County, surrounding counties, and the state are shown in Tables II-4 and Table II-5. These tables use 1970, 1980, 1990, and 1996 information. The County's population growth continues to occur largely within the townships. Little to no intensification of the County's centers (villages and cities) will be anticipated under current patterns. In the absence of any information to the contrary, the County's population centers are expected to remain the same for both the short and long terms; no new centers added, no existing centers disappearing, all centers remaining relatively the same in density.

DATA BASE

Table II-2

Local Governmental Population Projections

	Census 1990	July Est. 1991	July Est. 1992	July Est. 1993	July Est. 1994	July Est. 1995	July Est. 1996	Local Govt. Share Pop. Growth/Loss 1990-96	Change 1996-97	Projections 1997	Change 1997-98	Projections 1998	Change 1998-99	Projections 1999	Change 1999-2000	Projections 2000
								Loss # -268 Grow # 4398	Loss # -46 Grow # 745		Loss # -46 Grow # 749		Loss # -47 Grow # 753		Loss # -47 Grow # 757	
County	135,982	137,315	138,243	139,189	139,562	139,976	140,112	Net 4130	700	140,812	704	141,516	707	142,224	711	142,935
Cities/Vlgs																
Albion	10,066	10,116	10,135	10,178	10,089	9,943	9,884	(0.6791045)	(31)	9,853	(31)	9,822	(32)	9,790	(32)	9,758
Athens	990	998	1,017	1,039	1,068	1,064	1,064	0.0168258	13	1,077	13	1,089	13	1,102	13	1,115
Battle Creek	53,516	53,907	54,117	53,955	53,785	53,583	53,430	(0.3208955)	(15)	53,415	(15)	53,400	(15)	53,385	(15)	53,370
Burlington	294	299	303	305	300	314	315	0.0047749	4	319	4	322	4	326	4	329
Homer	1,758	1,780	1,795	1,824	1,844	1,859	1,865	0.0243232	18	1,883	18	1,901	18	1,920	18	1,938
Marshall	6,941	6,982	6,991	6,981	6,965	7,185	7,251	0.0704866	53	7,304	53	7,355	53	7,409	53	7,463
Springfield	5,582	5,620	5,645	5,668	5,655	5,655	5,654	0.0163711	12	5,663	12	5,678	12	5,691	12	5,703
Tekonsha	733	742	745	748	745	749	746	0.0029559	2	748	2	750	2	753	2	755
Union City(Part)	7	7	7	7	7	7	7	-	-	7	-	7	-	7	-	7
Cities/Vlgs Totals	79,887	80,451	80,755	80,713	80,455	80,389	80,216		55	80,271	58	80,327	55	80,382	58	80,438
Townships																
Albion	1,256	1262	1275	1289	1305	1310	1,315	0.0134152	10	1,325	10	1,335	10	1,345	10	1,355
Athens	1,525	1533	1539	1539	1531	1533	1,530	0.0011369	1	1,531	1	1,532	1	1,533	1	1,533
Bedford	9,846	9909	9993	10055	10036	10058	10,066	0.0500227	37	10,103	37	10,141	38	10,178	38	10,216
Burlington	1,472	1480	1486	1486	1478	1480	1,477	0.0011369	1	1,478	1	1,479	1	1,480	1	1,480
Clarence	2,051	2062	2081	2101	2118	2135	2,146	0.0216007	16	2,162	16	2,178	16	2,195	16	2,211
Clarendon	1,100	1106	1110	1110	1104	1106	1,103	0.0006821	1	1,104	1	1,104	1	1,105	1	1,105
Convis	1,739	1748	1755	1755	1746	1748	1,744	0.0011369	1	1,745	1	1,746	1	1,747	1	1,747
Eckford	1,217	1225	1240	1257	1272	1288	1,308	0.0206912	15	1,323	15	1,339	16	1,354	16	1,370
Emmett	10,784	11091	11299	11877	12347	12457	12,487	0.3917690	292	12,779	293	13,072	295	13,367	297	13,664
Fredonia	1,741	1752	1777	1803	1817	1828	1,833	0.0208186	16	1,849	16	1,864	16	1,880	16	1,896
Homer	1,117	1123	1127	1127	1121	1123	1,120	0.0006821	1	1,121	1	1,121	1	1,122	1	1,122
Lee	1,281	1290	1296	1305	1312	1318	1,319	0.0066403	6	1,325	6	1,332	7	1,338	7	1,345
Leroy	3,026	3077	3118	3157	3199	3275	3,328	0.0686676	51	3,379	51	3,431	52	3,482	52	3,534
Marengo	1,781	1792	1812	1844	1857	1893	1,915	0.0304684	23	1,938	23	1,961	23	1,983	23	2,007
Marshall	2,625	2642	2677	2717	2754	2811	2,870	0.0557071	42	2,912	42	2,953	42	2,995	42	3,037
Newton	2,025	2057	2088	2112	2150	2181	2,218	0.0438836	33	2,251	33	2,284	33	2,317	33	2,350
Pennfield	8,374	8542	8630	8716	8746	8829	8,876	0.1141428	85	8,961	85	9,047	86	9,132	86	9,219
Sheridan	2,139	2152	2160	2181	2194	2213	2,222	0.0188722	14	2,236	14	2,250	14	2,264	14	2,279
Tekonsha	1,016	1021	1025	1025	1020	1021	1,019	0.0006821	1	1,020	1	1,020	1	1,021	1	1,021
Twp Totals	58,095	58,864	57,488	58,458	59,107	59,807	59,896		844	60,540	847	61,187	851	61,838	854	62,492
Co Totals	135,982	137,315	138,243	139,189	139,562	139,976	140,112		899	140,811	703	141,514	706	142,220	710	142,930
Alloc																
	1990	1991	1992	1993	1994	1995	1996			1997		1998		1999		2000
					Frac Co Gro wth 1990-98		0.0323425									
					Frac Co Los s 1990-96		-0.0019708			Local Govt Tot						

Table II-2 - Continued

Local Governmental Population Projections

	Local Govt Share Pop																				
	Growth/Loss 1990-96	Change 2000-2001		Change 2001-2002		Change 2002-2003		Change 2003-2004		Change 2004-2005		Change 2005-2006		Change 2006-2007		Change 2007-2008		Change 2008-2009		Change 2009-2010	
	Loss # -268	Loss # -47	Projections	Loss # -47	Projections	Loss # -47.5	Projections	Loss # -48	Projections	Loss # -48	Projections	Loss # -48	Projections	Loss # -48	Projections	Loss # -49	Projections	Loss # -49	Projections	Loss # -49	Projections
County	Grow # 4398 Net 4130	Grow # 760 715	2001 143,649	Grow # 764 718	2002 144,387	Grow # 768 722	2003 145,089	Grow # 772 725	2004 145,815	Grow # 776 729	2005 146,543	Grow # 779.5 733	2006 147,276	Grow # 783 736	2007 148,012	Grow # 787 740	2008 148,752	Grow # 791 744	2009 149,496	Grow # 795 747	2010 150,243
Cities/Vilg																					
Albion	(0 6791045)	(32)	9,726	(32)	9,664	(32)	9,662	(33)	9,629	(33)	9,596	(33)	9,564	(33)	9,531	(33)	9,498	(33)	9,465	(33)	9,431
Athens	0 0168258	13	1,127	13	1,140	13	1,153	13	1,166	13	1,179	13	1,192	13	1,205	13	1,219	13	1,232	13	1,245
Battle Creek	(0 3208955)	(15)	53,355	(15)	53,340	(15)	53,325	(15)	53,310	(15)	53,294	(15)	53,279	(15)	53,263	(16)	53,248	(16)	53,232	(16)	53,216
Burlington	0 0047749	4	333	4	337	4	340	4	344	4	348	4	351	4	355	4	359	4	363	4	366
Homer	0 0243292	18	1,957	19	1,975	19	1,994	19	2,013	19	2,032	19	2,050	19	2,070	19	2,089	19	2,108	19	2,127
Marshall	0 0704886	54	7,518	54	7,570	54	7,624	54	7,679	55	7,733	55	7,788	55	7,844	55	7,899	55	7,955	55	8,011
Springfield	0 0163711	12	5,716	13	5,728	13	5,741	13	5,753	13	5,766	13	5,779	13	5,792	13	5,805	13	5,817	13	5,830
Takosha	0 0029559	2	757	2	759	2	762	2	764	2	766	2	769	2	771	2	773	2	776	2	778
Union City(part)			7		7		7		7		7		7		7		7		7		7
Cities/Vilg's Totals		58	80,494	57	80,551	57	80,607	57	80,664	57	80,722	58	80,779	58	80,838	58	80,895	58	80,954	59	81,013
			2001		2002		2003		2004		2005		2006		2007		2008		2009		2010
Townships																					
Albion	0 0134152	10	1,365	10	1,378	10	1,386	10	1,398	10	1,407	10	1,417	11	1,428	11	1,438	11	1,449	11	1,460
Athens	0 0011369	1	1,534	1	1,535	1	1,538	1	1,537	1	1,538	1	1,539	1	1,540	1	1,540	1	1,541	1	1,542
Bedford	0 0500227	36	10,254	36	10,293	36	10,331	36	10,370	36	10,408	36	10,447	36	10,487	36	10,526	40	10,565	40	10,605
Burlington	0 0011369	1	1,481	1	1,482	1	1,483	1	1,484	1	1,485	1	1,486	1	1,487	1	1,487	1	1,488	1	1,489
Clarence	0 0216007	16	2,227	17	2,244	17	2,260	17	2,277	17	2,294	17	2,311	17	2,328	17	2,345	17	2,362	17	2,379
Clarendon	0 0006821	1	1,106	1	1,106	1	1,107	1	1,107	1	1,108	1	1,108	1	1,109	1	1,109	1	1,110	1	1,110
Convis	0 0011369	1	1,748	1	1,749	1	1,750	1	1,751	1	1,752	1	1,753	1	1,754	1	1,754	1	1,755	1	1,756
Eckford	0 0206912	16	1,386	16	1,402	16	1,418	16	1,434	16	1,450	16	1,466	16	1,482	16	1,498	16	1,515	16	1,531
Emmett	0 3917690	298	13,962	299	14,261	301	14,562	302	14,864	304	15,168	305	15,474	307	15,780	308	16,089	310	16,399	311	16,710
Fredonia	0 0209186	16	1,912	16	1,928	16	1,944	16	1,960	16	1,976	16	1,992	16	2,009	16	2,025	17	2,042	17	2,058
Homer	0 0006821	1	1,123	1	1,123	1	1,124	1	1,124	1	1,125	1	1,125	1	1,126	1	1,126	1	1,127	1	1,127
Lee	0 0006400	7	1,352	7	1,358	7	1,365	7	1,371	7	1,378	7	1,385	7	1,392	7	1,399	7	1,405	7	1,412
Leroy	0 0606676	52	3,586	52	3,639	53	3,692	53	3,745	53	3,798	54	3,851	54	3,905	54	3,959	54	4,014	55	4,068
Marengo	0 0304684	23	2,000	23	2,063	23	2,078	24	2,100	24	2,124	24	2,147	24	2,171	24	2,195	24	2,219	24	2,243
Marshall	0 0557071	42	3,080	43	3,122	43	3,165	43	3,208	43	3,251	43	3,295	44	3,338	44	3,382	44	3,426	44	3,470
Newton	0 0438836	33	2,383	34	2,417	34	2,450	34	2,484	34	2,518	34	2,553	34	2,587	35	2,621	35	2,655	35	2,691
Pennfield	0 1141428	87	9,306	87	9,393	88	9,481	88	9,569	88	9,657	88	9,745	88	9,833	88	9,925	88	10,016	89	10,106
Shenandoah	0 0188722	14	2,293	14	2,307	14	2,322	15	2,337	15	2,351	15	2,366	15	2,381	15	2,396	15	2,410	15	2,425
Takosha	0 0006821	1	1,022	1	1,022	1	1,023	1	1,023	1	1,024	1	1,024	1	1,025	1	1,025	1	1,026	1	1,026
Twp Totals		657	63,149	660	63,809	664	64,473	667	65,140	671	65,811	674	66,485	677	67,161	680	67,842	684	68,525	687	69,212
Co Totals Alloc		713	143,643	717	144,380	721	145,081	724	145,805	728	146,533	732	147,284	735	147,999	738	148,737	742	149,479	746	150,225
			2001		2002		2003		2004		2005		2006		2007		2008		2009		2010

DATA BASE

Table II-3

Population Projections Calhoun County & Selected Southwest/ Southcentral Michigan Counties

County	1970	% Change	1980	% Change	1990	% Change	2000	% Change	2005	% Change	2010	% Change	2015	% Change	2020
Calhoun	141,963	-0.3%	141,579	-4.0%	135,982	5.1%	142,900	1.0%	144,400	0.8%	145,500	0.6%	146,400	0.5%	147,200
Allegan	66,575	22.5%	81,555	11.0%	90,509	13.4%	102,600	4.4%	107,100	4.5%	111,900	4.5%	116,900	4.2%	121,800
Barry	38,166	20.0%	45,781	9.3%	50,057	9.1%	54,600	3.1%	56,300	2.8%	57,900	2.4%	59,300	1.9%	60,400
Bremen	163,940	4.5%	171,276	-5.8%	161,378	0.6%	162,300	-0.3%	161,800	-0.6%	160,800	-0.7%	159,700	-0.5%	158,900
Branch	37,906	6.0%	40,188	3.3%	41,502	5.5%	43,800	2.5%	44,900	2.7%	46,100	2.4%	47,200	2.1%	48,200
Cass	43,312	14.3%	49,499	0.0%	49,477	0.7%	49,800	0.8%	50,200	0.4%	50,400	0.0%	50,400	-0.4%	50,200
Clinton	48,492	15.3%	55,893	3.6%	57,883	9.5%	63,400	2.1%	64,700	1.4%	65,600	0.8%	66,100	0.3%	66,300
Eaton	68,892	28.2%	88,337	5.1%	92,879	9.9%	102,100	3.7%	105,900	3.5%	109,600	3.6%	113,500	3.4%	117,400
Hillsdale	37,171	13.2%	42,071	3.2%	43,431	7.3%	46,600	2.8%	47,900	2.7%	49,200	2.4%	50,400	2.4%	51,600
Ingham	261,039	5.5%	275,520	2.3%	281,912	-0.6%	280,100	0.1%	280,500	-0.1%	280,200	0.0%	280,100	0.0%	280,000
Ionia	45,848	13.0%	51,815	10.1%	57,024	7.5%	61,300	2.0%	62,500	2.1%	63,800	1.6%	64,800	1.1%	65,500
Jackson	143,274	5.7%	151,495	-1.1%	149,756	4.6%	156,700	1.3%	158,700	1.1%	160,400	1.0%	162,000	0.9%	163,400
Kalamazoo	201,550	5.4%	212,378	5.2%	223,411	4.7%	233,800	1.8%	237,900	1.4%	241,300	1.3%	244,500	1.2%	247,500
Kent	411,044	8.1%	444,506	12.6%	500,631	10.6%	553,500	4.8%	579,800	4.7%	607,300	4.9%	636,900	4.8%	667,400
Lenawee	81,951	9.8%	89,948	1.7%	91,476	8.9%	99,600	2.7%	102,300	2.2%	104,600	2.0%	106,700	1.7%	108,500
Muskegon	157,426	0.1%	157,589	0.9%	158,983	4.7%	166,400	0.7%	167,600	0.7%	168,800	0.7%	169,900	0.5%	170,800
Ottawa	128,181	31.1%	168,000	11.8%	187,768	22.4%	229,800	8.4%	249,000	8.2%	269,300	8.3%	291,600	8.2%	315,600
St. Joseph	47,392	22.6%	58,100	1.4%	58,913	4.7%	61,700	1.3%	62,500	1.3%	63,300	0.9%	63,900	0.6%	64,300
Van Buren	56,173	18.2%	66,400	5.5%	70,060	12.3%	78,700	5.2%	82,800	5.2%	87,100	5.1%	91,500	4.7%	95,800
Michigan	8,881,826	4.3%	9,262,044	0.4%	9,295,277	5.3%	9,786,700	1.8%	9,963,800	1.6%	10,121,300	1.6%	10,285,000	1.6%	10,454,700

Source: Michigan Department of Management and Budget, 1985.

Table II-4

Calhoun County
Population Densities By Community
(Persons Per Square Mile)

Community	Approximate Area (Square Miles)	1970	1980	1990	1996	2000	2010	2020
CITIES/VILLAGES								
City of Albion	4.0	3028	2765	2517	2471	2533	2688	2843
Village of Athens	1.0	996	960	990	1064	1070	1086	1102
City of Battle Creek	53.0	1148	1063	1010	1008	992	953	914
Village of Burlington	1.0	314	367	294	315	315	315	315
Village of Homer	1.0	1617	1791	1758	1865	1893	1962	2013
City of Marshall	4.0	1813	1800	1735	1813	1813	1813	1813
City of Springfield	2.5	1598	2367	2233	2262	2336	2520	2704
Village of Tekonsha	1.0	739	755	733	746	745	747	749
Townships								
Albion	34.0	47	42	37	39	38	36	34
Athens	35.0	33	37	44	44	44	43	42
Bedford	29.6	365	343	333	340	337	330	223
Burlington	35.0	35	44	42	42	43	45	47
Clarence	36.0	39	53	57	60	62	68	74
Clarendon	36.0	32	33	31	31	31	31	31
Convis	36.0	36	48	48	48	49	52	55
Eckford	35.8	37	36	34	37	37	37	37
Emmett	33.0	330	338	326	378	384	398	412
Fredonia	35.0	41	50	50	52	53	56	59
Homer	35.0	31	36	32	32	32	32	32
Lee	36.0	31	33	36	37	38	41	43
Leroy	36.0	74	81	84	92	94	99	104
Marengo	35.0	53	52	51	55	55	56	57
Marshall	32.0	70	80	82	90	92	98	104
Newton	36.0	37	35	56	62	65	72	79
Pennfield	35.0	237	250	239	254	256	261	266
Sheridan	34.0	73	66	63	65	64	62	60
Tekonsha	35.0	27	29	29	29	29	30	31

Table II-5
**Population Density of Selected Southwest/
 Southcentral Michigan Counties**
(Population Per Square Mile)

COUNTIES	Approximate Area (Square Miles)	1970	1980	1990	2000	2010	2020
Calhoun	708.9	200	200	192	202	205	208
Allegan	827.5	80	99	109	124	135	147
Barry	556.2	69	82	90	98	104	109
Berrien	571.0	287	300	283	284	282	278
Branch	507.4	75	79	82	86	91	95
Cass	492.2	88	101	101	101	102	102
Clinton	571.5	85	98	101	111	115	116
Eaton	576.5	120	153	161	177	190	204
Hillsdale	598.9	62	70	73	78	82	86
Ingham	559.2	467	493	504	501	501	501
Ionia	573.2	80	90	99	107	111	114
Jackson	706.6	203	214	212	222	227	231
Kalamazoo	561.9	359	378	398	416	429	440
Kent	856.2	480	519	585	646	709	779
Lenawee	750.6	109	120	122	133	139	145
Muskegon	509.2	309	309	312	327	332	335
Ottawa	565.7	227	297	332	406	476	558
St. Joseph	503.7	94	115	117	122	126	128
Van Buren	611.0	92	109	115	129	143	157
Michigan	54,809	162	169	170	179	185	191

DATA BASE

Centers of Solid Waste Generation:

Map II-1 illustrates the current population and waste generation centers located within the County. As discussed previously, the residential centers of solid waste generation are projected to remain the same for both the short and long terms. The commercial solid waste generation is also projected to remain in or near the existing villages, cities, and urbanized areas (short and long term). The regional shopping center activity at the east end of the Beckley Road corridor appears to continue to experience growth.

Battle Creek has the highest concentration of industry, followed by Marshall and Albion. A relatively small number of industries are located within the townships and rural areas of the County.

In the short term, the industrial waste generation centers are expected to remain the same, but may experience some expansion. It should be noted that circumstances regarding the prospects for industrial location and waste generation can change very rapidly.

In the short term, expansion may occur in the following industrial areas:

1. In the Battle Creek (Fort Custer Industrial Park) urban area
2. In the Albion, Marshall, and Springfield industrial areas
3. Some redevelopment can be expected in the older, existing (²brownfield) areas.

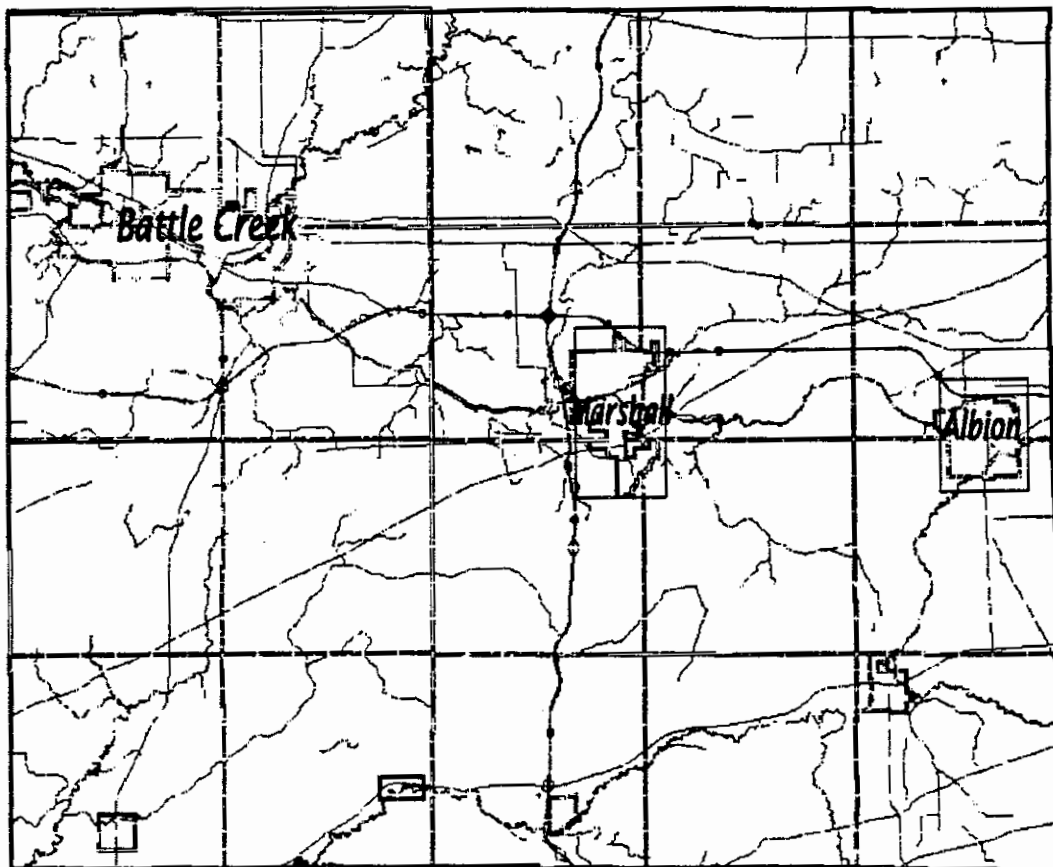
There are a few, large greenfield industrial sites in the County which have been dormant for many years, but which potentially could receive large scale development at any time. Norfolk Southern Railroad acquired in June of 1999 the Conrail tracks, which border three of these large greenfield sites. Norfolk Southern is well known and successful in industrial development and could make a difference in the development of these greenfield sites.

In the long term, there is high confidence in industrial development continuing to occur in the industrial parks within the County, due to the accessibility of necessary infrastructure. Brownfield sites may have public infrastructure, but also have other problems. Greenfield sites typically have attractive settings, but little or no public infrastructure.

² A brownfield is a site, or portion thereof, that has actual or perceived contamination and an active potential for redevelopment or reuse.

Map II-1

**Solid Waste Generation Centers
Based on Population
Calhoun County, Michigan**



Map Generated Using MIRIS Base Map Data

 Solid Waste Generation Centers

DATA BASE

Relationship of Current and Projected Land Development Patterns and Solid Waste Management:

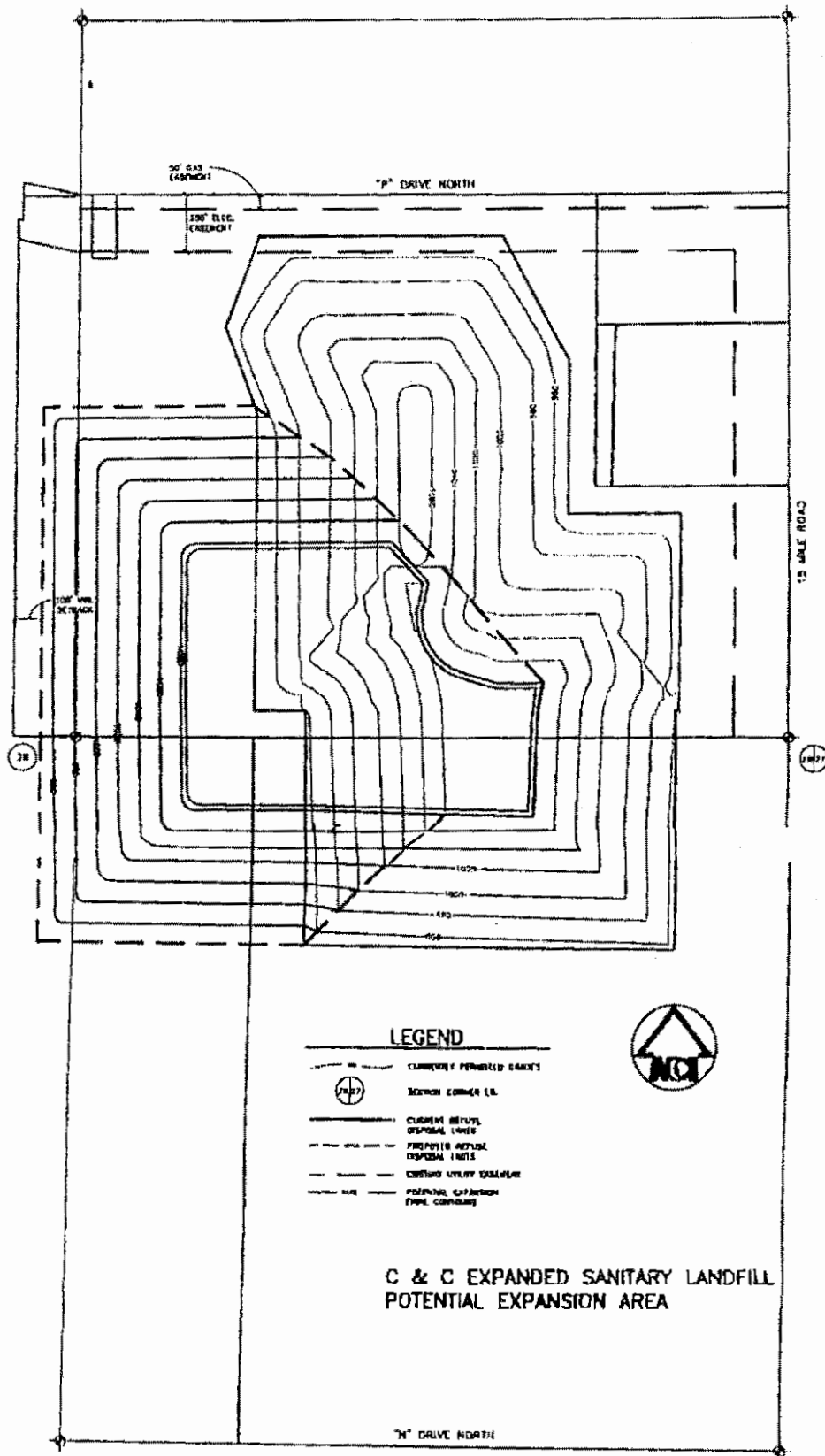
With only a few exceptions, new residential development is occurring largely outside the existing villages and cities. This is projected to continue in the short term and long term. This trend may increase the cost of residential solid waste collection. Due to residential dwellings being spaced farther apart, waste haulers will experience higher operational costs to provide collection services in those areas. However, it continues to be a small price that homeowners are willing to pay. This trend may also work against curbside residential recycling. An increasing portion of the County's population may have to travel farther in order to participate in using drop-off recycling sites.

Patterns of commercial land use development in and near existing villages and cities are projected to continue in the short and long terms. This is not expected to create any problems in relation to solid waste management.

Industrial land use development generally in or near existing industrial parks is not expected to create any significant problems in relation to solid waste management. This is projected for both the short and long terms.

Relationship of Environmental Conditions to Solid Waste Management

Calhoun County has a number of rivers and streams, flood plains, wetlands, and a few wildlife sanctuaries and parks which are of concern when siting new solid waste management facilities. Map II-2 identifies several of the natural areas within the County that may not be suitable for development of solid waste facilities. Refer to Chapter III, Siting Review Procedures, for applicable isolation distances for these and other natural areas identified in the County.



C & C EXPANDED SANITARY LANDFILL POTENTIAL EXPANSION AREA

DATA BASE

SOLID WASTE MANAGEMENT ALTERNATIVES

The following briefly describes all solid waste management systems considered by the County and how each alternative will meet the needs of the County. The manner of evaluation and ranking of each alternative is also described. Details regarding the Selected Alternatives are located in the following section and in Appendix A. Details regarding each non-selected alternative are located in Appendix B.

Before deciding on a selected system, the County considered three management system options. These proposed alternatives were discussed by the County Solid Waste Management Planning Committee and evaluated to include the following management components:

Waste reduction, pollution prevention includes changes in manufacturing or other processes which generate solid waste as a function of the process so that a reduced amount of waste is created. Additionally, changes may be made to the waste stream to produce a waste that contains less potential environmental pollutants.

Resource conservation includes reduced resource use per product, increased product life, product reuse, and decreased consumption of products which become solid waste. Implementation of resource conservation can be accomplished through voluntary action by consumers and manufacturers or through legislative measures. Local entities can best encourage voluntary action by providing public education and promotional activities and through enacting local government procurement policies that give a preference to purchase recycled content products.

Resource recovery includes source separation or mixed waste processing and the subsequent recovery of materials, energy savings and/or production re-use potential, and market availability for recovered materials processed by each process. Source separation involves the separation of selected materials at the source of generation. This process may be practiced at residences, commercial establishments, institutions, and industries. The recovered materials may be picked up at the site or the generator may directly haul materials to a recycling center. Mixed waste processing involves the physical or mechanical separation of recoverable materials from the waste stream after the waste is collected and transported to a solid waste processing facility, often called a material recovery facility or MRF. Mixed waste processing techniques include hand sorting, screening, gravity and magnetic separation, and optical separation.

Volume reduction includes processing by compactors, balers, shredders, and incinerators.

Sanitary landfill includes identification of disposal methods such as the trench method, the area method, or the depression method and locations.

Collection processes and transportation includes the process of transferring the waste from the point of generation to a transfer station, processing plant, resource recovery facility, or final disposal area. Consider the types of collection containers used at the generation site, the types of equipment used to haul the waste, who hauls the waste, and how bulk items will be handled.

Ultimate disposal area uses includes recreational or other potential uses after the facility is properly closed and maintained.

Institutional arrangements include the agreements and organizational arrangements and structures which provide for public and/or private operation of solid waste collection, processing, and disposal systems. It also may include multijurisdictional approaches in managing solid waste.

DATA BASE

Recycling and composting programs include the following:

1. Considering how various factors do or may affect recycling or composting programs. Factors include evaluation of existing solid waste collection systems, materials markets, transportation networks, local composting and recycling support groups, institutional arrangements, population, and other pertinent factors. [Sec. 11539(1)]
2. Identifying impediments to implementing a recycling and composting program and recommended strategies for removing or minimizing those impediments. [Sec. 11539(1)]
3. Evaluating how recycling and composting and other processing or disposal methods could complement each other and examine the feasibility of excluding site separated material and source separated material from other processing or disposal methods. [Sec. 11539(1)]
4. Identifying and quantifying environmental, economic, and other benefits that could result from the implementation of a recycling and composting program. [Sec. 11539(1)]
5. Examining the feasibility of source separation of materials that contain potentially hazardous components at disposal areas. [Sec. 11539(1)]

The proposed alternative systems were evaluated and ranked on the following:

- technical feasibility for five- and ten-year periods
- economic feasibility for five- and ten-year periods
- access to land for five- and ten-year periods
- access to transportation networks to accommodate the development and operation of solid waste transporting, processing, and disposal facilities for five- and ten-year periods
- effects on energy for five- and ten-year periods, production possibilities and impacts of shortages on solid waste management systems
- environmental impacts for five- and ten-year periods
- public acceptability

The following is a brief summary of each management system considered, including an assessment of how it addresses the County's needs. Details about the evaluation process and both non-selected systems can be found in Appendix B.

Management System No. 1

This option preserves the current waste management system, described in the Data Base section and throughout this Plan. The County would rely on the C&C Landfill and out-of-county landfills and private, municipal contracts and subscription-based disposal service, while maintaining its role in encouraging the development of waste reduction and recycling programs. The County would use available resources to coordinate the funding and implementation of County operated recycling and composting programs. The latter is accomplished through continued use of the Solid Waste Management Fund to subsidize programs and collections by collecting a 3% surcharge on each cubic yard disposed of at the C&C Landfill.

The existing licensed C&C Landfill space at current rates of usage can accommodate the County's and a portion of neighboring counties' solid waste disposal needs for about seven (7) years, with locally approved additional capacity totaling fourteen (14) years. It is estimated that there is a current base of approximately 27% of the County's solid waste that is now and will continue to be recycled and composted. The percentage of solid waste to be recycled and composted in the County is projected to increase by another 5% over the short-term for an eventual total of 32%.

DATA BASE

This approach represents the status quo, suggesting no changes or expansions. Because it has been successful for the past four (4) years, helping Calhoun County reduce its volume of disposable waste, there is reason to believe Management System No. 1 would serve the County adequately over the five (5) and ten (10) year planning periods.

Management System No. 2

While identical to System No. 1 in every other management component, this option specifies that the County will pursue development of a new sanitary landfill, public or private, somewhere within its own boundaries, or consider expansion of the existing C&C Landfill.

Calhoun County has no inclination to get into the waste business and, with an abundance of regional landfill space, the private sector is not pursuing new sites at this time. Considering these factors, this may not be a viable option. The County, however, remains open to potential new landfills (Type II and Type III) for the long term planning period.

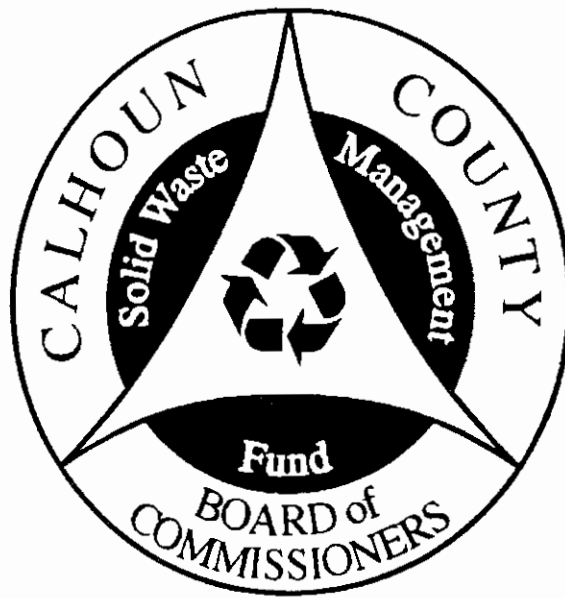
Expansion of the existing C&C Landfill could provide some security regarding long-term capacity needs and, through negotiation of host community fees, bring in additional revenues for both Convis Township and the County. An expansion at the C&C Landfill, at current rates of usage, may accommodate the County's and a portion of neighboring counties' solid waste disposal needs for all of the long-term (10 year) planning period.

Management System No. 3

This proposed option is very similar to Management System No. 1. The private sector still provides all waste collection services (except for some instances of private or public parties who collect their own wastes and then transport it directly to a disposal facility) through municipal contracts or on a subscription basis but the public and private sectors initiative in promoting waste reduction is enhanced. The County continues to maintain its role in encouraging the development of waste reduction and recycling programs. The County also uses its available resources to coordinate the funding and implementation of County-operated recycling and composting programs. The County attempts to expand recycling opportunities by increasing the number of communities participating in cost-share programs and encouraging community sponsors to provide financial contributions to these programs. If an alternative funding mechanism is identified, the County could work to implement that approach.

The County would rely on out-of-county landfills to accept a portion of its waste. The existing authorized C&C Landfill, at current rates of usage, can accommodate the County's and a portion of neighboring counties' solid waste disposal needs for about seven (7) years, with locally approved additional capacity totaling fourteen (14) years. Expansion at the C&C Landfill or any new landfill development will be evaluated according to the provisions of the Plan and reviewed for consistency with the Siting Criteria contained in Chapter III. If the C&C Landfill is closed (either permanently or temporarily) within the short-term (5 year) or long-term (10 year) planning periods the County will export the bulk of its waste. The County would remain open to potential new landfills (Type II and Type III) for the long term planning period.

Because Management System No. 3 provides an enhanced potential for recycling as well as greater security regarding disposal capacity requirements, it is superior to both Management Systems No. 1 and 2.



CHAPTER III
SELECTED SYSTEM

SELECTED SYSTEM

THE SELECTED SOLID WASTE MANAGEMENT SYSTEM

The Selected Solid Waste Management System (Selected System) is a comprehensive approach to managing the County's solid waste and recoverable materials. The Selected System addresses the generation, transfer, and disposal of the County's solid waste. It aims to reduce the amount of solid waste sent for final disposal by volume reduction techniques and by various resource conservation and resource recovery programs. It also addresses collection processes and transportation needs that provide the most cost effective, efficient service. Proposed disposal area locations and their capacities to accept solid waste are identified, as well as program management, funding, and enforcement roles for local agencies. Detailed information on recycling programs, evaluation, and coordination of the Selected System is included in Appendix A. Included on the following pages is an overall description of the Selected System.

The Selected Management System selected by Calhoun County continues to rely on the following:

- Landfilling – The County has access to enough landfill space to meet its disposal needs for the next ten (10) years. Approximately 56% of Calhoun County's waste will continue to be exported to landfills in neighboring counties. The County will dispose of approximately 44% of its waste in-county at the C&C Landfill.
- Recycling – Calhoun County diverts approximately 27% of its waste stream by recycling and composting programs. Within the County there are three municipal curb-side recycling programs and a number of recycling drop-off boxes that continue to operate effectively. The County will pursue options to increase recycling opportunities by investigating new funding sources.
- Composting – The public and private sectors both have composting opportunities available within the County. Composting activities represent approximately 56% of the total materials recovered from the solid waste stream in Calhoun County.
- Household Hazardous Waste Collection – In efforts to reduce the contamination of the waste stream with toxic chemicals, Calhoun County will continue to make available annual Household Hazardous Waste collections.

SELECTED SYSTEM

IMPORT AUTHORIZATION

Import of solid waste for disposal at the C&C Landfill from the following counties is explicitly authorized by Calhoun County, according to the Authorized Conditions in Table III-1

TABLE III-1

CURRENT IMPORT VOLUME AUTHORIZATION OF SOLID WASTE

IMPORTING COUNTY	EXPORTING COUNTY	FACILITY NAME	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS
Calhoun	Allegan	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Barry	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Berrien	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Branch	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Cass	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Clinton	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Eaton	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Hillsdale	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Ingham	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Ionia	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Jackson	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Kalamazoo	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Kent	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Lenawee	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Muskegon	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Ottawa	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	St. Joseph	C&C Landfill	0-100%	0-100%	* Conditions
Calhoun	Van Buren	C&C Landfill	0-100%	0-100%	* Conditions

Authorization indicated by *Conditions:

Conditions are as authorized per civil agreement between Calhoun County and C&C Landfill, owned by BFI. The agreement is available for viewing at the County's central repository listed in the Cover Page of this Plan.

As stated in the agreement: "From all sources, the C&C Landfill shall not receive more than 1.5 million gate cubic yards in any one calendar year and no more than 6 875 million gate cubic yards in any consecutive five (5) calendar year period".

Note that authorized import to Calhoun County is also contingent on compliance with Act 451, which requires explicit authorization by the exporting county.

SELECTED SYSTEM

EXPORT AUTHORIZATION

Export of solid waste originating in Calhoun County is authorized for disposal to the following counties according to the Authorized Conditions in Table III-2 and if the receiving county specifically authorizes such importation through its approved Solid Waste Management Plan.

TABLE III-2

CURRENT EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS
Calhoun	Allegan	0-100%	0-100%	P
Calhoun	Barry	0-100%	0-100%	P
Calhoun	Berrien	0-100%	0-100%	P
Calhoun	Branch	0-100%	0-100%	P
Calhoun	Cass	0-100%	0-100%	P
Calhoun	Clinton	0-100%	0-100%	P
Calhoun	Eaton	0-100%	0-100%	P
Calhoun	Hillsdale	0-100%	0-100%	P
Calhoun	Ingham	0-100%	0-100%	P
Calhoun	Ionia	0-100%	0-100%	P
Calhoun	Jackson	0-100%	0-100%	P
Calhoun	Kalamazoo	0-100%	0-100%	P
Calhoun	Kent	0-100%	0-100%	P
Calhoun	Lenawee	0-100%	0-100%	P
Calhoun	Muskegon	0-100%	0-100%	P
Calhoun	Ottawa	0-100%	0-100%	P
Calhoun	St. Joseph	0-100%	0-100%	P
Calhoun	Van Buren	0-100%	0-100%	P
Calhoun	Washtenaw	0-100%	0-100%	P

Authorization indicated by P = Primary Disposal

Primary disposal is the selected counties within the Southwest and Mid-Michigan regions that are explicitly recognized and authorized by the County for daily export for disposal of solid waste originating in Calhoun County.

SELECTED SYSTEM

FUTURE EXPORT VOLUME AUTHORIZATION

Future export of solid waste originating in Calhoun County is authorized for disposal to the following counties according to the authorized conditions in Table III-3 and if the receiving county specifically authorizes such importation through its approved Solid Waste Management Plan.

TABLE III-3

FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE

EXPORTING COUNTY	IMPORTING COUNTY	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS
Calhoun	Alcona	100%	100%	S
Calhoun	Alger	100%	100%	S
Calhoun	Alpena	100%	100%	S
Calhoun	Antrim	100%	100%	S
Calhoun	Arenac	100%	100%	S
Calhoun	Baraga	100%	100%	S
Calhoun	Bay	100%	100%	S
Calhoun	Benzie	100%	100%	S
Calhoun	Charlevoix	100%	100%	S
Calhoun	Cheboygan	100%	100%	S
Calhoun	Chippewa	100%	100%	S
Calhoun	Clare	100%	100%	S
Calhoun	Crawford	100%	100%	S
Calhoun	Delta	100%	100%	S
Calhoun	Dickinson	100%	100%	S
Calhoun	Emmet	100%	100%	S
Calhoun	Genesee	100%	100%	S
Calhoun	Gladwin	100%	100%	S
Calhoun	Gogebic	100%	100%	S
Calhoun	Grand Traverse	100%	100%	S
Calhoun	Gratiot	100%	100%	S
Calhoun	Houghton	100%	100%	S
Calhoun	Huron	100%	100%	S
Calhoun	Iosco	100%	100%	S
Calhoun	Iron	100%	100%	S
Calhoun	Isabella	100%	100%	S
Calhoun	Kalkaska	100%	100%	S
Calhoun	Keweenaw	100%	100%	S
Calhoun	Lake	100%	100%	S
Calhoun	Lapeer	100%	100%	S
Calhoun	Leelanau	100%	100%	S
Calhoun	Livingston	100%	100%	S
Calhoun	Luce	100%	100%	S
Calhoun	Mackinac	100%	100%	S

SELECTED SYSTEM

FUTURE EXPORT VOLUME AUTHORIZATION OF SOLID WASTE, TABLE III-3 Continued.

EXPORTING COUNTY	IMPORTING COUNTY	AUTHORIZED QUANTITY/ DAILY	AUTHORIZED QUANTITY/ ANNUAL	AUTHORIZED CONDITIONS
Calhoun	Macomb	0-100%	0-100%	S
Calhoun	Manistee	0-100%	0-100%	S
Calhoun	Marquette	0-100%	0-100%	S
Calhoun	Mason	0-100%	0-100%	S
Calhoun	Mecosta	0-100%	0-100%	S
Calhoun	Menominee	0-100%	0-100%	S
Calhoun	Midland	0-100%	0-100%	S
Calhoun	Missaukee	0-100%	0-100%	S
Calhoun	Monroe	0-100%	0-100%	S
Calhoun	Montcalm	0-100%	0-100%	S
Calhoun	Montmorency	0-100%	0-100%	S
Calhoun	Newaygo	0-100%	0-100%	S
Calhoun	Oakland	0-100%	0-100%	S
Calhoun	Oceana	0-100%	0-100%	S
Calhoun	Ogemaw	0-100%	0-100%	S
Calhoun	Ontonagon	0-100%	0-100%	S
Calhoun	Osceola	0-100%	0-100%	S
Calhoun	Oscoda	0-100%	0-100%	S
Calhoun	Otsego	0-100%	0-100%	S
Calhoun	Presque Isle	0-100%	0-100%	S
Calhoun	Roscommon	0-100%	0-100%	S
Calhoun	Saginaw	0-100%	0-100%	S
Calhoun	Sanilac	0-100%	0-100%	S
Calhoun	Schoolcraft	0-100%	0-100%	S
Calhoun	Shiawassee	0-100%	0-100%	S
Calhoun	St. Clair	0-100%	0-100%	S
Calhoun	Tuscola	0-100%	0-100%	S
Calhoun	Wayne	0-100%	0-100%	S
Calhoun	Wexford	0-100%	0-100%	S

Authorization indicated by S = Secondary Disposal.

Secondary Disposal is a contingency option for the authorized export of solid waste originating in the County. This option shall be authorized only in the event that the County at any time during this planning period is not able to certify a minimum of 66 months of disposal capacity.

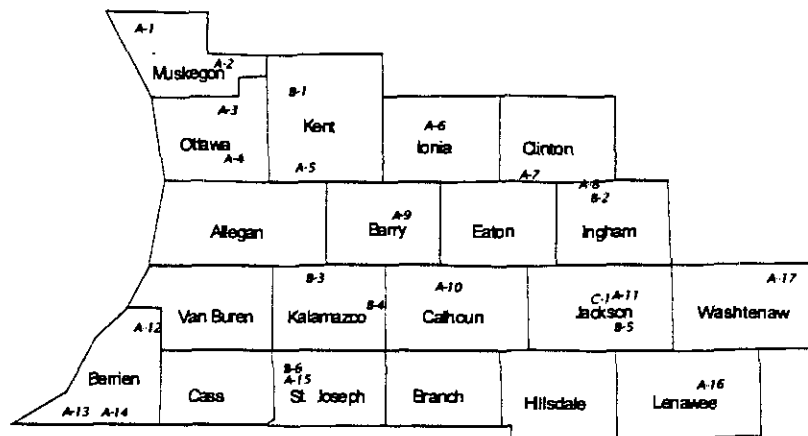
SELECTED SYSTEM

SOLID WASTE DISPOSAL AREAS

The following map identifies the names and locations of existing disposal facilities within the Southwest and Mid-Michigan region, the Primary Disposal Region, as recognized in this Plan. The following pages (III8 - III15) contain descriptions of the solid waste disposal facilities which are located within the County and the disposal facilities located outside of the County which may be utilized by the County for the planning period. Additional facilities within the County with applicable permits and licenses may be utilized as they are sited by this Plan, or amended into this Plan, and as they become available for disposal use. Additional facilities located outside of the County with applicable permits and licenses that are not recognized by this Plan may be utilized by the County providing the receiving county is authorized for export by this Plan and the import is authorized in the receiving County's Plan. Facilities outside of Michigan may also be used if legally available for such use.

MAP III-1

PRIMARY DISPOSAL REGION SOUTHWEST & MID-MICHIGAN REGION SOLID WASTE DISPOSAL AREAS



- Type II Landfills
- A-1 White Lake Landfill
 - A-2 Muskegon County Landfill
 - A-3 Ottawa County Farms
 - A-4 Autumn Hills RDF
 - A-5 South Kent County Landfill
 - A-6 Pitsch Sanitary Landfill
 - A-7 Granger #2
 - A-8 Granger #1
 - A-9 Hastings Sanitary Landfill
 - A-10 C&C Landfill
 - A-11 McGill Rd Landfill
 - A-12 Orchard Hill Sanitary Landfill
 - A-13 Forest Lawn Landfill
 - A-14 S.E. Berrien County Landfill Authority
 - A-15 Westside Sanitary Landfill
 - A-16 Adrian Landfill
 - A-17 Arbor Hills Landfill

- Type III Landfills
- B-1 Sparta Foundry Waste Disposal
 - B-2 Daggett Sand & Gravel
 - B-3 Crown Vantage
 - B-4 Kalamazoo Valley Group Landfill
 - B-5 Liberty Environmental Landfill
 - B-6 Westside Sanitary Landfill

- Waste-to-Energy
- C-1 Jackson County Incinerator

Documentation of available capacity for Calhoun County at several of these facilities is found in Appendix D

SELECTED SYSTEM

FACILITY DESCRIPTIONS

The following pages describe the solid waste disposal areas within the Southwest and Mid-Michigan Region, which may be utilized by Calhoun County to meet its disposal needs for the five (5) to ten (10) year planning periods. For additional information on each of these facilities, refer to Chapter II, Facility Descriptions.

Type II Landfills:

White Lake Landfill

Location:	Muskegon County, T12N R17W Section 27
Owner:	Waste Management, Inc.
Operating status:	Open, but closure pending
Wastes types received:	Type II solid waste
Total area of facility property:	97 acres
Total area sited for use:	97 acres
Total area permitted:	34 acres
Area in operation:	18.45 acres
Area not excavated:	10 acres
Current capacity:	NA
Estimated lifetime:	1 year
Estimated days open per year:	312 days
Estimated yearly disposal volumes:	500,000 cubic yards
Annual landfill gas recovery:	NA

Muskegon County Landfill

Location:	Muskegon County, T10N R14W Section 19&20
Owner:	Muskegon County Board of Public Works
Operating status:	Opened, licensed & construction permit
Wastes types received:	Type II solid waste
Total area of facility property:	120 acres
Total area sited for use:	93 acres
Total area permitted:	93 acres
Area in operation:	34.3 acres
Area not excavated:	32.7 acres
Current capacity:	2,683,440 cubic yards
Estimated lifetime:	14 years
Estimated days open per year:	312 days
Estimated yearly disposal volumes:	195,000 cubic yards
Waste-to-energy incinerators:	NA

SELECTED SYSTEM

Ottawa County Farms

Location:	Ottawa County, T8N, R14W, Sections 26&27
Owner:	Allied Waste Systems Inc., Michigan
Operating status:	Opened & licensed & Construction Permit
Wastes types received:	Type II solid waste
Total area of facility property:	314 acres
Total area sited for use:	197 acres
Total area permitted:	99.3 acres
Area in operation:	37 acres
Area not excavated:	125 acres
Current capacity:	49,500,000 cubic yards
Estimated lifetime:	25-30 years
Estimated days open per year:	286 days
Estimated yearly disposal volumes:	1,500,000 cubic yards
Annual landfill gas recovery:	4,565 megawatts

Autumn Hills Recycling & Disposal Facility

Location:	Ottawa County, T5N R14W Section 36
Owner:	Waste Management of Michigan, Inc.
Operating status:	Opened & licensed & Construction Permit
Wastes types received:	Type II solid waste
Total area of facility property:	314 acres
Total area sited for use:	197 acres
Total area permitted:	99.3 acres
Area in operation:	35.1 acres
Area not excavated:	64.2 acres
Current capacity:	62,250,000 cubic yards
Estimated lifetime:	30.2 years
Estimated days open per year:	286 days
Estimated yearly disposal volumes:	1,500,000 cubic yards
Annual landfill gas recovery:	NA

South Kent County Landfill

Location:	Kent County, T5N R12W Section 36
Owner:	Kent County
Operating status:	Opened & licensed & Construction Permit
Wastes types received:	Type II solid waste
Total area of facility property:	250 acres
Total area sited for use:	112 acres
Total area permitted:	112 acres
Area in operation:	31 acres
Area not excavated:	81 acres
Current capacity:	7,600,000 cubic yards
Estimated lifetime:	38 years
Estimated days open per year:	310 days
Estimated yearly disposal volumes:	155,000 cubic yards
Annual landfill gas recovery:	NA

SELECTED SYSTEM

Pitsch Sanitary Landfill

Location:	Ionia County, T8N R7W Section 7
Owner:	Pitsch Companies
Operating status:	Opened & licensed
Wastes types received:	Type II solid waste
Total area of facility property:	143.5 acres
Total area sited for use:	28.36 acres
Total area permitted:	78.44 acres
Area in operation:	9.87 acres
Area not excavated:	70 acres
Current capacity:	415,000 cubic yards
Estimated lifetime:	5 years
Estimated days open per year:	307 days
Estimated yearly disposal volumes:	83,000 cubic yards
Annual landfill gas recovery:	NA

Granger #1: Wood Street Landfill

Location:	Clinton County, T5N R – Section 34 Ingham County, T4N R2W Section 3
Owner:	Granger Waste Management Company
Operating status:	Open, licensed, & construction permit
Wastes types received:	Type II solid waste
Total area of facility property:	302.8 acres
Total area sited for use:	194.8 acres
Total area permitted:	104.3 acres
Area in operation:	49.5 acres
Area not excavated:	54.8 acres
Current capacity:	10,981,000 cubic yards
Estimated lifetime:	34 years
Estimated days open per year:	260 days
Estimated yearly disposal volumes:	600,000 cubic yards
Annual landfill gas recovery:	3.2 megawatts

Granger #2: Grand River Landfill

Location:	Clinton County, T5N R3W Section 29
Owner:	Granger Waste Management Company
Operating status:	Open, licensed, & construction permit
Wastes types received:	Type II solid waste
Total area of facility property:	180.9 acres
Total area sited for use:	120.9 acres
Total area permitted:	85.7 acres
Area in operation:	54.1 acres
Area not excavated:	31.6 acres
Current capacity:	7,617,000 cubic yards
Estimated lifetime:	32 years
Estimated days open per year:	300 days
Estimated yearly disposal volumes:	600,000 cubic yards
Annual landfill gas recovery:	4 megawatts

SELECTED SYSTEM

C&C Landfill

Location:	Calhoun County, T1S R6W Section 28
Owner:	Browning Ferris Industries
Operating status:	Opened & licensed
Wastes types received:	Type II solid waste
Total area of facility property:	224 acres
Total area sited for use:	154 acres
Total area permitted:	129 acres
Area in operation:	33 acres
Area not excavated:	21 acres
Current capacity:	7,570,000 cubic yards
Estimated lifetime:	7 years
Estimated days open per year:	286 days
Estimated yearly disposal volumes:	1,000,000 cubic yards
Annual landfill gas recovery:	3 megawatts

In accordance with the agreement and subsequent amendment between BFI and Calhoun County, the C&C Landfill is authorized to expand by 16 acres of refuse fill area in addition to the existing facility. When combined with the existing available landfill space, this additional area will result in total capacity of 14,000,000 cubic yards and an estimated lifetime of fourteen (14) years.

The landfill and final elevation after closure shall be no higher than 1090 feet above sea level. Such final elevation shall be certified by a Michigan registered land surveyor or Michigan licensed engineer

Hastings Sanitary Landfill

Location:	Barry County, T3W R8N Section 6
Owner:	City Management Corporation
Operating status:	Open, licensed, & construction permit
Wastes types received:	Type II solid waste
Total area of facility property:	330 acres
Total area sited for use:	330 acres
Total area permitted:	48 acres
Area in operation:	19.5 acres
Area not excavated:	28.5 acres
Current capacity:	5,000,000 cubic yards
Estimated lifetime:	23+ years
Estimated days open per year:	308 days
Estimated yearly disposal volumes:	525,000 cubic yards
Annual landfill gas recovery:	NA

SELECTED SYSTEM

McGill Road Landfill

Location:	Jackson County, T2S R1W Section 24
Owner:	McGill Road Landfill
Operating status:	Opened & licensed
Wastes types received:	Type II solid waste
Total area of facility property:	50.5 acres
Total area sited for use:	41.8 acres
Total area permitted:	18.7 acres
Area in operation:	7.8 acres
Area not excavated:	17.5 acres
Current capacity:	1,236,300 cubic yards
Estimated lifetime:	15 years
Estimated days open per year:	310 days
Estimated yearly disposal volumes:	63,226 cubic yards
Waste-to-energy incinerators:	NA megawatts

Orchard Hill Landfill

Location:	Berrien County, T3S R7W Section 28 & 33
Owner:	Mennesey Land Company
Operating status:	Open & licensed
Wastes types received:	Type II & Type III solid waste
Total area of facility property:	160 acres
Total area sited for use:	117 acres
Total area permitted:	160 acres
Area in operation:	53 acres
Area not excavated:	64 acres
Current capacity:	8,000,000 cubic yards
Estimated lifetime:	10+ years
Estimated days open per year:	NA
Estimated yearly disposal volumes:	402,000 cubic yards
Annual landfill gas recovery:	NA

Forest Lawn Landfill

Location:	Berrien County, T8S R20W Section 17
Owner:	Forest Lawn Landfill, Inc
Operating status:	open & licensed
Wastes types received:	Type II solid waste
Total area of facility property:	284 acres
Total area sited for use:	135 acres
Total area permitted:	135 acres
Area in operation:	26 acres
Area not excavated:	78 acres
Current capacity:	15,900,000 cubic yards
Estimated lifetime:	15 years
Estimated days open per year:	286 days
Estimated yearly disposal volumes:	1,530,000 cubic yards
Annual landfill gas recovery:	NA

SELECTED SYSTEM

Southeast Berrien Landfill

Location:	Berrien County, T8S R7W Section 6
Owner:	Southeast Berrien County Landfill Authority
Operating status:	Open & licensed
Wastes types received:	Type II solid waste
Total area of facility property:	160 acres
Total area sited for use:	100 acres
Total area permitted:	39 acres
Area in operation:	27.5 acres
Area not excavated:	5.5 acres
Current capacity:	5,000,000 cubic yards
Estimated lifetime:	16.7 years
Estimated days open per year:	281 days
Estimated yearly disposal volumes:	800,000 cubic yards
Annual landfill gas recovery:	NA

Westside Landfill

Location:	St. Joseph County, T6S R12W Section 26
Owner:	Waste Management of Michigan, Inc.
Operating status:	Open & licensed
Wastes types received:	Type II solid waste
Total area of facility property:	640 acres
Total area sited for use:	490 acres
Total area permitted:	85 acres
Area in operation:	85 acres
Area not excavated:	0 acres
Current capacity:	14,790,000 cubic yards
Estimated lifetime:	12 years
Estimated days open per year:	300+ days
Estimated yearly disposal volumes:	1,200,000 cubic yards
Annual landfill gas recovery:	NA

Adrian Landfill

Location:	Lenawee County, T7&8S R4E Section 6&7
Owner:	Great Lakes Waste Services
Operating status:	Open & licensed
Wastes types received:	Type II solid waste
Total area of facility property:	421 acres
Total area sited for use:	287 acres
Total area permitted:	40 acres
Area in operation:	19 acres
Area not excavated:	20 acres
Current capacity:	2,002,000 cubic yards
Estimated lifetime:	6.8 years
Estimated days open per year:	307
Estimated yearly disposal volumes:	293,193 cubic yards
Annual landfill gas recovery:	20,148 megawatts

SELECTED SYSTEM

Arbor Hills Landfill

Location:	Washtenaw County, T1S R7E, Section 13
Owner:	Browning Ferris Industries, Inc.
Operating status:	Open, licensed & construction permit
Wastes types received:	Type II solid waste
Total area of facility property:	337 acres
Total area sited for use:	217 acres
Total area permitted:	217 acres
Area in operation:	113 acres
Area not excavated:	104 acres
Current capacity:	61,500,000 cubic yards
Estimated lifetime:	17.6 years
Estimated days open per year:	264
Estimated yearly disposal volumes:	3,500,000 cubic yards
Annual landfill gas recovery:	NA

Waste-to-Energy:

Jackson County Incinerator

Location:	Jackson County, T2S, RNA, Section 14
Owner:	Jackson County
Operating status:	Open & Licensed
Wastes types received:	Residential & Commercial
Total area of facility property:	NA
Total area sited for use:	NA
Total area permitted:	NA
Area in operation:	NA
Area not excavated:	NA
Current capacity:	73,000 Tons
Estimated lifetime:	20 Years
Estimated days open per year:	365 Days
Estimated yearly disposal volumes:	59,807 Tons
Annual energy production:	15,138 Megawatts

SELECTED SYSTEM

Type III Landfills:

Sparta Foundry Waste Disposal

Location:	Kent County, T9N R12W Section 28
Owner:	AE Goetze
Operating status:	Open & licensed
Wastes types received:	Industrial (Type NA)
Total area of facility property:	71 Acres
Total area sited for use:	25 Acres
Total area permitted:	8.75 Acres
Area in operation:	.75 Acres
Area not excavated:	4.3 Acres
Current capacity:	120,000 cubic yards
Estimated lifetime:	12 years
Estimated days open per year:	245 days
Estimated yearly disposal volumes:	10,000 cubic yards
Annual landfill gas recovery:	NA

Daggett Sand & Gravel

Location:	Ingham County, T Lansing, R, Section 3
Owner:	Daggett Sand & Gravel, Inc.
Operating status:	Opened & licensed
Wastes types received:	Type III construction waste
Total area of facility property:	10 acres
Total area sited for use:	6.4 acres
Total area permitted:	6.4 acres
Area in operation:	2-3 acres
Area not excavated:	NA
Current capacity:	60,000 cubic yards
Estimated lifetime:	7 years
Estimated days open per year:	250 days
Estimated yearly disposal volumes:	8,000 cubic yards
Annual landfill gas recovery:	NA

Crown Vantage

Location:	Kalamazoo County, T2S R11W Section 34
Owner:	Crown Paper Company
Operating status:	Opened & licensed
Wastes types received:	Type III paper waste residuals
Total area of facility property:	NA
Total area sited for use:	32.8 acres
Total area permitted:	31.4 acres
Area in operation:	8 acres
Area not excavated:	23.4 acres
Current capacity:	NA
Estimated lifetime:	NA
Estimated days open per year:	365 days
Estimated yearly disposal volumes:	20,000 cubic yards
Annual landfill gas recovery:	NA

SELECTED SYSTEM

Kalamazoo Valley Group

Location:	Kalamazoo County, T2S R9W Section 29
Owner:	Kalamazoo Valley Group
Operating status:	Opened & licensed
Wastes types received:	Type III paper waste residuals
Total area of facility property:	200.9 acres
Total area sited for use:	80 acres
Total area permitted:	10 acres
Area in operation:	8 acres
Area not excavated:	23.4 acres
Current capacity:	8,200,000 cubic yards
Estimated lifetime:	33 years
Estimated days open per year:	312 days
Estimated yearly disposal volumes:	250,000 cubic yards
Annual landfill gas recovery:	NA

Liberty Environmentalist

Location:	Jackson County, T R Section
Owner:	Liberty Environmentalist, Inc.
Operating status:	Open & licensed
Wastes types received:	Type III solid waste
Total area of facility property:	220 acres
Total area sited for use:	55 acres
Total area permitted:	15 acres
Area in operation:	15 acres
Area not excavated:	40 acres
Current capacity:	400,000 cubic yards
Estimated lifetime:	25 years
Estimated days open per year:	300 days
Estimated yearly disposal volumes:	165,000 cubic yards
Annual landfill gas recovery:	NA

Transfer Stations: (not included on Map III-1)

Cork Street Transfer Station

Location:	Kalamazoo County, T2S R11W Section 36
Owner:	BFI Waste Systems of Michigan
Operating status:	Open & licensed
Wastes types received:	Type II solid waste
Final disposal site:	C&C Landfill
Total area of facility property:	2.758 acres
Estimated days open per year:	300 days
Estimated yearly disposal volumes:	NA

SELECTED SYSTEM

Miller Road Transfer Station

Location:	Kalamazoo County, T2S R11W Section 25
Owner:	Landfill Management Company
Operating status:	Open & licensed
Wastes types received:	Type II solid waste
Final disposal site:	Orchard Hill Sanitary Landfill
Total area of facility property:	1 acre
Estimated days open per year:	312 days
Estimated yearly disposal volumes:	NA

Royal Holdings, Inc

Location:	Kalamazoo County, T2S R11W Section 36
Owner:	Tri-City Recycling & Disposal
Operating status:	Open & licensed
Wastes types received:	Type II solid waste
Final disposal site:	Southeast Berrien County Landfill & Orchard Hill Landfill
Total area of facility property:	8 acres
Total area sited for use:	NA
Estimated days open per year:	312 days
Estimated yearly disposal volumes:	175,000 cubic yards

Waste Management Transfer Station

Location:	Calhoun County, T2S R8W Section 5
Owner:	Waste Management of Michigan, Inc.
Operating status:	Open & licensed
Wastes types received:	Type II solid waste
Final disposal site:	Westside Landfill
Total area of facility property:	18.36 acres
Estimated days open per year:	310 days
Estimated yearly disposal volumes:	300,000 cubic yards

SELECTED SYSTEM

COLLECTION AND TRANSPORTATION INFRASTRUCTURE

In addition to the collection services and transportation infrastructure described in Chapter II, the following information is also provided.

All solid waste generated in Calhoun County is collected by the private sector, except for some instances of private or public parties who collect their own wastes and then transport it directly to a disposal facility.

Residential waste is generally collected by private haulers, either through contracts with municipalities or directly with private homeowners. The Cities of Battle Creek and Springfield, and the Village of Tekonsha are the only communities within the County that have standard waste hauling contracts. The standard waste hauling contracts provide service to approximately 42% of the total estimated population of the County in 1998, 59,828 people. For the balance of the County, most residents choose to have their waste collected every week at the curbside. Only a small portion of the homeowners in the County do not subscribe to collection services and choose to transport their own waste for disposal, generally to the C&C Landfill.

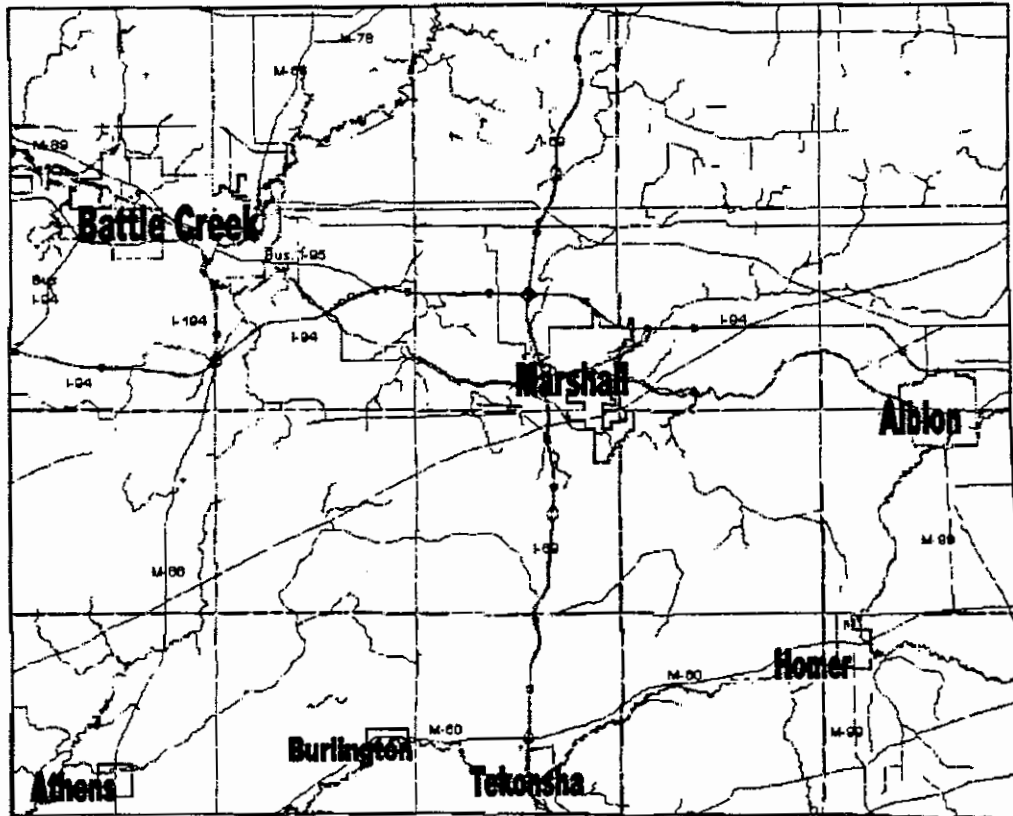
Several of the waste hauling companies that service residential homeowners also service the industrial and commercial businesses in the County. In addition, five (5) other waste hauling companies specialize in commercial and industrial on-site collection services. At the present, municipal contracts for commercial or industrial collections do not exist. It is known, however, that several commercial office buildings do include waste disposal charges in monthly rent payments. These charges allow centralized waste containers to be shared among tenants in the building. Some business communities, such as downtown stores, do coordinate efforts to jointly contract waste containers. However, most commercial and industrial businesses in the County independently choose their waste hauler and the frequency of collection that they may require.

Waste handled by private haulers is transported for final disposal to either the C&C Landfill or to landfills in neighboring counties within the Primary Disposal Region. The major routes traveled for nearly all short or long haul transportation occur over state and federal highways. Map III-2 shows the state and federal highways in the County. Generally, County roads are used for short distance travel to the C&C Landfill or to the Waste Management Transfer Station.

The County uses several private haulers who provide adequate collection services throughout the County for the various sources of waste. As long as the collection system is not disrupted, the present system operating in the County presents minimal health risks. Calhoun County will continue to rely on private sector services to transport collected solid waste to licensed and Plan-authorized transfer stations and landfills within and outside of the County.

MAP III-2

STATE & FEDERAL HIGHWAYS
CALHOUN COUNTY, MICHIGAN



Map Generated Using MIRIS Base Map Data

SELECTED SYSTEM

RESOURCE CONSERVATION EFFORTS

The following describes the Selected System's proposed conservation efforts to reduce the amount of solid waste generated throughout the County. The annual amount of solid waste currently, or proposed to be, diverted from landfills is estimated for each conservation effort to be used, if possible. Since conservation efforts are provided voluntarily and change with technologies and public awareness, it is not this Plan's intention to limit the efforts to only what is listed. Instead, citizens, businesses, and industries are encouraged to explore the options available to reduce the amount of materials requiring disposal, that will fit their lifestyles, practices, and processes.

Effort Description	Est. Diversion Tons/Yr		
	Current	5 th yr	10 th yr
Bottle Bill	2,854	2,997	3,282
Commercial/ Industrial Recycling	19,151	20,109	22,024
Curb-Side Recycling (Residential)	12,316	12,932	14,162
Drop-Off Recycling	5,026	5,277	5,780
Household Hazardous Waste Collections	6,210 Gal.	6,676 Gal.	7,142 Gal.
Solid Waste Education/Awareness	3,953	4,151	4,546
Tire Collections	3,953	4,151	4,546
White Goods Collections	586	615	674
Yard Waste Composting	41,919	45,063	48,207

Based on current year diversion rates, the 5 to 10 year projections have been calculated using an overall increase of 15%.

SELECTED SYSTEM

WASTE REDUCTION, RECYCLING, & COMPOSTING PROGRAMS

Volume Reduction:

At the present, most solid waste collected within Calhoun County is currently compacted using packer collection trucks and/or compacted at one of the transfer facilities recognized in this Plan. The annual amount of landfill airspace not used as a result of these techniques is estimated at a 50% compaction ratio per cubic yard. That is, for every cubic yard of solid waste collected, the actual airspace that is required for disposal at the landfill will be reduced by half.

Solid Waste Collected in <u>1995</u> :	634,955 cubic yards
Volume Reduction Techniques:	<u>X</u> 50% compaction
Landfill Airspace Required	317,478 in place cubic yards

Solid Waste Collected in <u>2000</u> :	638,763 cubic yards
Volume Reduction Techniques:	<u>X</u> 50% compaction
Landfill Airspace Required	319,382 in place cubic yards

Solid Waste Collected in <u>2005</u> :	645,468 cubic yards
Volume Reduction Techniques:	<u>X</u> 50% compaction
Landfill Airspace Required	322,734 in place cubic yards

Solid Waste Collected in <u>2010</u> :	650,385 cubic yards
Volume Reduction Techniques:	<u>X</u> 50% compaction
Landfill Airspace Required	325,193 in place cubic yards

Because technologies change and equipment may need replacing, it is not this Plan's intention to limit the techniques used to the two mentioned above. Persons within the County are encouraged to utilize the technique that provides the most efficient and practical volume reduction for their needs. It should be noted that volume reduction is practiced voluntarily by the private sector and the County may only encourage the development and use of these technologies to conserve disposal capacity.

SELECTED SYSTEM

Overview of Resource Recovery Programs:

The following describes the type and volume of material in the County's waste stream that may be available for recycling or composting programs

Programs for recycling, composting, and source separation of potentially hazardous materials are feasible in Calhoun County. According to a survey conducted in 1998 by the Calhoun County Solid Waste Coordination Office, a number of public and private sector programs exist for the potential recovery of a wide range of residential waste materials. Table III-4 lists the potential materials and volumes that may be available for recovery from the residential waste stream, according to a 1995 study from Southwest Michigan Recycling Market Development Strategy: Part II Background, May 1995.

In the study, the Calhoun County Solid Waste Coordination Office found that residential opportunities exist to recycle at home in many areas throughout the County. In residential areas of the County with a larger concentration of dwelling units, curb-side recycling programs were found to be available, and fourteen (14) multiple family housing complexes were found to offer recycling services on-site.

A volume-based pricing structure for residential refuse collection is not in place in the County, which could provide an economic incentive for people to participate in recycling programs. However, participation in the County-level recycling programs that are provided at no charge to County residents continue to have increased participation. According to reports by the City of Battle Creek and Waste Management of Southwest Michigan, participation in curb-side recycling in the City has remained the same for the past few years. Participation levels in recycling programs in other areas of the County are unknown.

In Calhoun County several commercial and industrial recycling opportunities exist for recovery of paper, metals, and plastic waste materials. Three of the commercial waste haulers who presently operate in the County offer business office paper recycling. Akers Wood Products rebuilds and recycles scrap shipping pallets. Franklin Metals and Plastics specializes in recovery of various industrial scrap metals and plastics. Cereal City Recycling currently recovers packaging and food waste from cereal producers in the County. Table III-5 lists the businesses operating in the County who offer business recycling services.

Discussion of the impediments to recycling and composting programs have surfaced through County-level meetings over the past few years. Several special solid waste meetings have been held by the County for interested local governmental representatives to comment on local programs and to express interest levels towards specific programs. It has been found that much interest exists within the local units of government to develop programs for composting and recycling, while financial support to start and continue these programs has been the most challenging barrier.

As a result of these meetings, a number of cooperative recycling and composting opportunities have become available to the local municipal units within the County. Also, the development of the County's Solid Waste Management Fund has offered municipalities an opportunity to submit proposals through the Solid Waste Challenge Grant Program for the development of local solid waste programs. Projects that may be considered in the program support a variety of objectives, including public education, resource recovery, waste reduction, or other solid waste related programs.

Another solid waste management concern for local municipal governments has been the establishment of residential yard waste and roadside brush disposal centers. The County, Calhoun County Community Development (CCCD) Agency, and the City of Marshall are planning to open the Community Compost Center in the fall of 1999. The center will collect grass clippings, leaves, brush, and stumps. The center will be available to all Calhoun County residents. It may be possible that other municipalities will also

SELECTED SYSTEM

partner in this venture in the future. It is the intention of this partnership to make the compost operation become financially self-sustaining through user fees and the sale of finished (composted) materials.

Other project ideas have been pursued by the County to lower the cost in managing compost centers and yard-waste programs. These include multi-service contracts, shared purchases of equipment, and bulk purchases of common program supplies.

The County's residential recycling drop-off centers, managed by the CCCD, have received overwhelming participation for the past several years. Funding for this service is currently provided solely through the County's Solid Waste Management Fund, which is revenue received by the County from tipping fees paid under an agreement by the C&C landfill, owned by BFI. In 1998, the CCCD began to seek partial funding for the program through commercial and community sponsors. The HHW program, managed by the Calhoun County Environmental Health Department, also pursues alternative funding.

The CCCD also manages two countywide scrap tire and white goods (stoves, refrigerators, etc.) collections every year. Funding for these events is provided by the County's SWMF and from fees collected during the event. Many private businesses in the County provide collection services, similar to the County's, for recycling of tires, scrap, or reusable appliances. The County may choose to begin promoting these services within the private sector businesses.

TABLE III-4
POTENTIAL MATERIAL RECOVERY

Material	Residential Recovery Potential	Residential Waste Composition	Business Recovery Potential	Business Waste Composition
Newsprint	80%	9%	80%	4%
Office Paper	25%	7%	65%	9%
Cardboard	50%	6%	80%	32%
Magazines	40%	3%	25%	4%
Boxboard	40%	6%	30%	3%
Glass	50%	7%	40%	2%
Steel	50%	4%	90%	4%
Aluminum	80%	1%	90%	1%
Other Metals	0.0%	1%	80%	1%
HDPE	50%	1%	50%	1%
PET	50%	1%	50%	1%
Plastic Film	0.0%	3%	25%	2%
Polystyrene	30%	1%	50%	1%
Other Plastics	0.0%	3%	30%	4%
Textiles	0.0%	4%	30%	3%
Food Waste	60%	11%	20%	8%
Yard Waste	90%	21%	90%	8%
Wood Waste	30%	4%	75%	6%
Rubber	50%	1%	50%	1%
Other	0.0%	7%	20%	7%
Total	50%	101%	60%	102%

From Southwest Michigan Recycling Market Development Strategy: Part II Background, May 1995, prepared by Resource Recycling Systems of Ann Arbor and Public Policy Associates of Lansing.

SELECTED SYSTEM

COMMERCIAL & INDUSTRIAL RECYCLING

The following table is a list of companies that provide commercial and/or industrial recycling collection or processing services for pre-consumer recovered waste materials in the County. The following companies are privately owned and operated. The service arrangements, including the materials collected and frequency of collection, are determined by the provider of the service.

Table III-5
Business Recycling Services

Company Name	Service Area	Service Type	Materials Collected/Processed
Akers Wood Products	County	Commercial & Industrial	Wood Pallets
Browning Ferris Industries	County	Commercial & Industrial	Paper & Special Services
Cereal City Recycling	County	Commercial & Industrial	Metals, Plastics, & Waste Paper
City Environmental Mgmt.	County	Commercial & Industrial	Paper & Special Services
Franklin Iron/Metal & Plastic	County	Commercial & Industrial	Ferrous & Non-Ferrous Metals, & Pre-Consumer Plastics
Liberty Environmentalist	County	Commercial & Industrial	Construction and Demolition
Marshall Iron & Metal	County	Commercial & Industrial	Ferrous & Non-Ferrous Metals
Tri-City Recycling	County	Commercial & Industrial	Waste Paper
Tire Recovery Inc.	County	Commercial & Industrial	Scrap Tires
Waste Management, Inc.	County	Commercial & Industrial	Paper & Special Services

SELECTED SYSTEM

Recycling And Composting:

The following is a brief analysis of the recycling and composting programs selected for the County in this Plan. Additional information on the operation of these recycling and composting programs is included in Appendix A.

Since the 1993 Calhoun County Solid Waste Management Plan, the County has experienced a moderate increase in the number of communities that have recycling opportunities available. Many communities within Calhoun County have indicated they currently have recycling services available or are interested in developing programs to make services available. Refer to Table III-6. At the present time, there are sixteen (16) residential recycling centers operating within the County for recovery of materials such as paper, glass, metal, and plastic. Map III-3 identifies the locations of drop-off recycling centers in the County.

Most recycling centers within the County operate as drop-off sites where residents sort their recyclables by paper (newsprint, magazines, office paper) or containers (metal cans, glass bottles, plastic jugs) into large roll-off containers. Seven (7) of the sixteen (16) recycling centers are funded by the SWMF.

Many communities within the County have curb-side recycling services available on a subscription basis. Presently, four waste haulers offer curb-side collection in residential areas. Other than the residents in the Cities of Battle Creek and Springfield, and Village of Tekonsha, individual households may choose their refuse collection service provider and the level of service they will require. It is possible that some residents have chosen not to participate in curb-side recycling programs at their own expense when County funded drop-off recycling is available.

There are currently eight (8) yard-waste collection and composting programs operating in the County. Refer to Table III-7. Six (6) of the programs are owned and operated by local municipal governments, while two (2) are privately owned and operated. Each of the municipal programs have sited areas within their communities for the conversion of yard-waste into compost or wood chips, excluding Pennfield Township who operates an on-site residential wood chipping service. The two privately operated programs transport the collected yard wastes out of the County for the purpose of composting.

With increased public awareness for environmental solid waste education in the County, resource recovery will be moving toward the state goals by the year 2005. These goals are: 8 to 12% waste reduction, 4 to 6% product reuse, 8 to 12% composting, and 20 to 30% recycling. Current estimates show that Calhoun County is composting 15% and recycling 9% of its total waste stream. In addition, Calhoun County also has made program efforts to remove potentially hazardous materials from the solid waste stream, as indicated in Table III-8

SELECTED SYSTEM

RECYCLING, COMPOSTING, & SOURCE SEPARATION OF POTENTIALLY HAZARDOUS WASTE

The following table identifies the existing recycling programs operating in the County at the time this Plan was being prepared. It is anticipated that these programs will continue to operate and improve throughout the foreseeable future. Additional information on the operation of the following recycling, composting, and source separation of potentially hazardous waste programs is included in Appendix A.

Table III-6

Recycling Programs

Program Name	Service Area	Public or Private	Collection Point	Collection Frequency	Materials ¹ Collected	Program Management ² Responsibilities		
						Development	Operation	Evaluation
Albion Center	County	Public	Drop-Off	Daily	G, M, P, & Pl	1, 2, 3	3	1, 3
Athens Village	County	Public	Drop-Off	Monthly	G, M, P, & Pl	1, 2, 3	3	1, 3
Battle Creek	City Residents	Private	Curb-Side	Weekly	G, M, P, & Pl	4	6	4, 6
Bedford Twp.	County	Public	Drop-Off	Monthly	G, M, P, & Pl	1, 2, 3	3	1, 3
BFI - Convis Twp.	County	Private	Drop-Off	Daily	G, M, & Al Foil	1, 3, 4, 6	6	6
Calhoun Community Development Agency	County	Public	Drop-Off	Fall & Spring	Tires & White Goods	1, 2, 3	2	1, 2, 3
Cereal City Recycling	County	Private	Drop-Off	Daily	G, M, P, & Pl	6	6	6
Clarence Twp.	County	Public	Drop-Off	Monthly	G, M, P, & Pl	1, 2, 3	3	1, 3
Emmett Twp.	Township	Public	Drop-Off	Daily	Flint, M, P, & Pl	4	4	4
Homer Recycling	Village/Twp.	Private	Drop-Off	Bi-Weekly	G, M, P, & Pl	5	2, 5	2, 5
Jim Hazel's News-Paper Collection	County	Private	Drop-Off	Daily	Newspaper	6	6	6
Liberty Environmental	County	Private	On-Site	Daily	Construction/ Demolition	6	6	6
Marshall City	County	Public	Drop-Off	Daily	G, M, P, & Pl	1, 2, 3	3	1, 3
Springfield City	City Residents	Private	Curb-Side	Weekly	G, M, P, & Pl	4	6	4, 6
Village of Homer	County	Public	Drop-Off	Monthly	G, M, P, & Pl	1, 2, 3	1, 3	4
Waste Management Recycle Center	County	Private	Drop-Off	Daily	G, M, P, Pl, & Styrofoam	6	6	6
Tekonsha Twp.	Village/Twp.	Private	Curb-Side	Monthly	G, M, P, & Pl	4	6	4

¹ Materials Collected Identified By:

G= Glass: Brown, Green, & Flint; M= Metal: Aluminum & Steel Cans; P= Paper: Boxboard, Cardboard, Newspapers, Magazines, Office Paper, & Telephone Books;

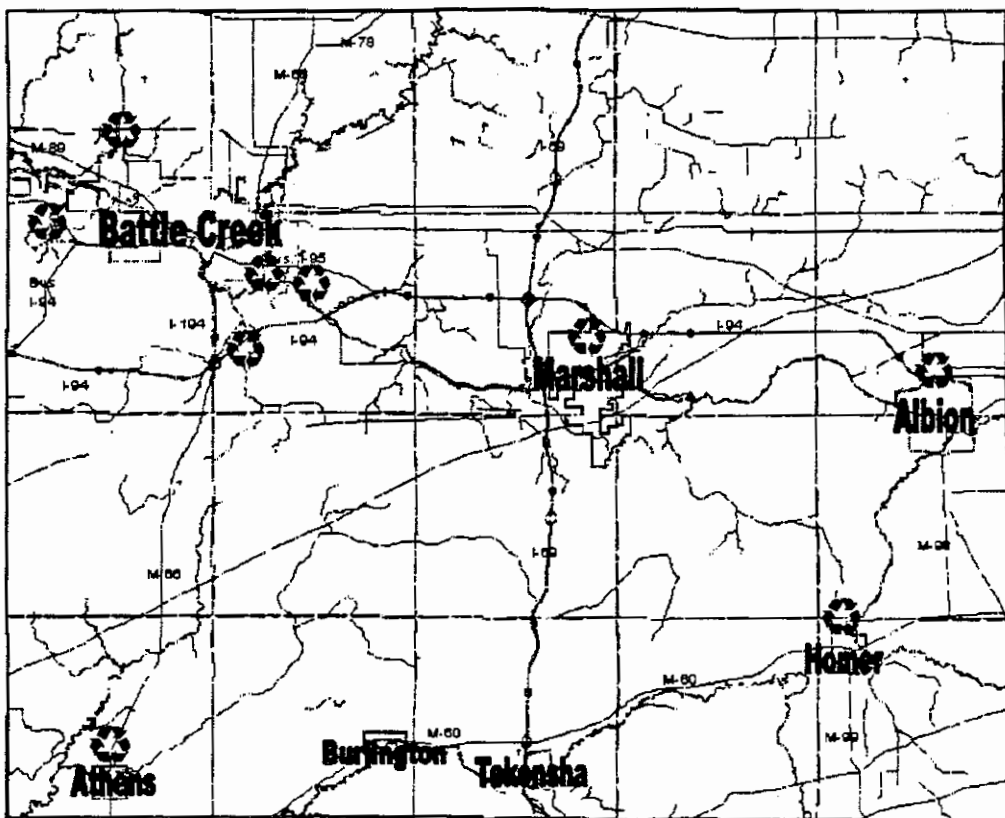
Pl = Plastic: #1 PETE & #2 HDPE Clear/Cloudy & Color.

² Identified by: 1 = Designated Planning Agency; 2 = County Community Development Agency; 3 = Board of Commissioners; 4 = Local Government; 5 = Environmental Group;

6 = Private Owner.

Map III-3

Drop-Off Recycling Centers
Calhoun County, Michigan



Map Generated Using MIRS Base Map Data



Recycling Drop-Off Centers

SELECTED SYSTEM

Table III-7
Composting Programs

Program Name	Service Area	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management Responsibilities ¹		
						Development	Operation	Evaluation
City of Albion	Albion City	Public	Drop-Off	April - October	Leaves & Brush	4	4	4
Village of Athens	Athens Village	Public	Curb-Side	Spring, Summer, & Fall	Grass, Leaves, & Brush	4	4	4
Community Compost Ctr.	County	Public	Drop-Off	April - November (To Open 10-99)	Grass, leaves, Brush, & Stumps	1, 2, 3, 4	2, 4	1, 2, 3, 4
City of Battle Creek	Battle Creek City	Private	Curb-Side	April - November	Grass, Leaves, & Brush	4, 6	6	4, 6
Village of Homer	Homer Village	Public	Curb-Side	Fall (Year-Round Drop-Off)	Leaves	4	4	4
City of Marshall	Marshall City	Public	Curb-Side & Drop-Off	Fall Leaf, Drop-Off Spring, Summer, & Fall	Grass, Leaves, & Brush	4	4	4
City of Springfield	Springfield City	Private	Curb-Side	April - November	Grass, Leaves, & Brush	4, 6	6	4, 6
Village of Tekonsha	Tekonsha Village	Public	Curb-Side	Fall Leaf & Monthly Brush	Leaves & Brush	4	4	4

¹ Identified by: 1 = Designated Planning Agency; 2 = County Community Development Agency; 3 = Board of Commissioners; 4 = Local Government; 5 = Environmental Group; 6 = Private Owner.

Table III-8

Source Separation Of Potentially Hazardous Materials

Since improper disposal of nonregulated hazardous materials has the potential to create risks to the environment and human health, the following programs have been implemented to remove these materials from the County's solid waste stream.

Program Name	Service Area	Public or Private	Collection Point	Collection Frequency	Materials Collected	Program Management ¹ Responsibilities		
						Development	Operation	Evaluation
Calhoun County Household Hazardous Waste Collection	County	Public	Varies	4 Days Yearly	Aerosol Cans, Household Batteries, Cleaners & Polishers, Hobby and Art Supplies, Paints & Solvents, Pesticides & Herbicides, Personal & Health Care Products, & Other Materials	1, 2, 3	2	1, 2, 3
Kalamazoo County Clean-Sweep Ctr.	County	Public	Drop-Off	Daily	Pesticides & Herbicides	7	7	7
Rechargeable Battery Recycling Corp. (RBRC)	County	Private	Albion, Battle Creek, Marshall	Daily	Ni-Cad Batteries	6	6	6
Automotive Waste Collection Sites	County	Private	Albion, Athens, Battle Creek, Convis, Marshall, Springfield.	Daily	Antifreeze, Motor Oil/ Filters, & Batteries (see Automotive Recycle Guide, Appendix A)	6	6	6

¹ Identified by: 1 = Designated Planning Agency; 2 = Calhoun County Environmental Health Department; 3 = Board of Commissioners; 4 = Local Government; 5 = Environmental Group; 6 = Private Owner; 7 = Other.
RBRC: Consumers can recycle Ni-Cad batteries by bringing them to any retail stores participating in the program, including: ACE Hardware, Ameritech, Black & Decker, Car Phone Stores, Circuit City, Radio Shack, Sears, Target, and Wal Mart.

SELECTED SYSTEM

EDUCATIONAL AND INFORMATIONAL PROGRAMS

It is often necessary to provide educational and informational programs regarding the various components of a solid waste management system before and during its implementation. These programs are offered to avoid miscommunication, which can result in improper handling of solid waste and to provide assistance to the various audiences who participate in programs, such as waste reduction and waste recovery. Following is a list of on-going programs offered, or proposed to be offered, in Calhoun County. These programs will be continued throughout the foreseeable future.

Program Topic	Delivery Medium ²	Targeted Audience ³	Program Provider
1, 2, 3, 4, 5	w, t, n, o, f, e, ot (internet)	p, b, i, s	Designated Planning Agency/ Calhoun County Community Development Agency
1, 2, 3, 4, 5	Earth & Environmental Unit Kit	Elementary Students, especially in 4 th & 5 th grades	Battle Creek Math & Science Center
1, 2	r, t, n, f	p	Designated Planning Agency/ Calhoun County Community Development Agency
3	r, t, n, f	p	Environmental Health Department
4	o, f, In Concert With The Environment	s	Consumers Energy
2	ot - On-Site Tours	p, s	Binder Park Zoo
1, 2, 4	w, r, t, n, o, f, e	p, b, i, s	MSU Extensions
2	w, o, f	p	Battle Creek & Marshall Garden Clubs
4	w, n, f	p, b, i	Calhoun County Conservation District
1, 2, 3, 4, 5	ot - Events & Mobius Curriculum	p, s (K-12)	Browning-Ferris Industries

¹ Identified By 1 = Recycling; 2 = Composting; 3 = HHW; 4 = Resource Conservation;
5 = Waste Reduction; 6 = Other As Explained.

² Identified By w = Workshops; r = Radio; t = Television; n = Newspaper;
o = Organizational Newsletters; f = Flyers; e = Exhibits; ot = Other As Explained.

³ Identified By p = Public; b = Business; i = Industry; s = Students.

SELECTED SYSTEM

IDENTIFICATION OF RESOURCE RECOVERY MANAGEMENT ENTITIES

The following identifies public and private parties, and the resource recovery or recycling programs for which they have management responsibilities.

Identification of Responsible Parties

Program

Public Programs:

Albion City
Athens Village
Battle Creek City
Calhoun County Community Development

Calhoun County Environmental Health Dept.
Kalamazoo County
Emmett Township
Homer Village
Marshall City
Pennfield Township
Springfield City
Tekonsha Village

Tree & Brush Dump
Yard-Waste Collection & Compost Center
Curbside Recycling
Drop-Off Recycling; Scrap Tire & White Goods
Collections; & Compost Center (10/99)
Household Hazardous Waste Program
Clean Sweep Collection Center
Drop-Off Recycling
Yard-Waste Collection & Compost Center
Yard-Waste Collection & Compost Center
Brush Collection
Curbside Recycling
Curbside Recycling

Private Programs:

Akers Wood Products
BFI
Cereal City Recycling
City Environmental Mgmt.
Franklin Iron/Metal & Plastic
Jim Hazel's
Liberty Environmental
Marshall Metals
Radio Shack
Waste Management
Tri-City Recycling

Wood Pallet Refurbish & Recycling
Drop-Off & Curb-Side Recycling
Drop-Off Recycling
Curbside Recycling
Metal & Plastic Recycling
Drop-Off Recycling
Construction & Demolition Recycling
Metal Recycling
Ni-Cad Battery Recycling
Drop-Off & Curbs-Side Recycling
Drop-Off & Curb-Side Recycling

SELECTED SYSTEM

PROJECTED DIVERSION RATES

The following projected diversion rates estimate the annual amount of solid waste which is expected to be diverted from landfills and incinerators as a result of the current resource recovery programs in Calhoun County for the next the five (5) to ten (10) year planning periods

Collected Materials:	Projected Annual Diversion (Cubic Yards)		
	Current	5 th Year	10 th Year
A. Total Plastics:	5,027	5,278	5,781
B. Newspaper:	3,830	4,022	4,405
C. Corrugated Containers:	7,173	7,532	8,249
D. Total Other Paper:	8,266	8,679	9,506
E. Total Glass:	2,936	3,083	3,376
F. Other Materials:	8,409	8,829	9,670

Collected Materials:	Projected Annual Diversion (Cubic Yards)		
	Current	5 th Year	10 th Year
G. Grass & Leaves:	41,919	45,063	48,207
H. Total Wood Waste	1,149	1,206	1,321
I. Construction & Demolition:	309	324	355
J. Food & Food Processing:	1,532	1,609	1,762
K. Tires:	3,953	4,151	4,546
L. Total Metals:	3,324	3,490	3,823

Based on current year diversion rates, the 5 and 10 year projections have been calculated using an overall increase of 15%.

I. Assumes that construction and demolition waste is generated at a rate of 5.75 pounds per day per employee based on 260 work days per year, and projecting a 15% recovery.

Current Annual Diversion Total:	87,827 yd³
Projected 5 Year Diversion Total:	93,266 yd³
Projected 10 Year Diversion Total:	101,001 yd³

MARKET AVAILABILITY FOR COLLECTED MATERIALS

Collected Materials:	In-State Markets	Out-of-State Markets
A. Total Plastics:	80%	20%
B. Newspaper:	100%	NA
C. Corrugated Containers:	100%	NA
D. Total Other Paper:	90%	10%
E. Total Glass:	90%	10%
F. Other Materials:	NA	NA

Collected Materials:	In-State Markets	Out-of-State Markets
G. Grass & Leaves:	100%	NA
H. Total Wood Waste	100%	NA
I. Construction & Demolition:	NA	NA
J. Food & Food Processing:	NA	NA
K. Tires:	50%	50%
L. Total Metals:	100%	NA

SELECTED SYSTEM

TIMETABLE FOR SELECTED SYSTEM IMPLEMENTATION

This timetable is a guide to implement components of the Selected System, including a range of time in which each component will be implemented. This guide may be adjusted later, if necessary.

Management Components	Timeline
Collection Services/ Transportation	On-Going
Resource Conservation Efforts	On-Going
Volume Reduction	On-Going
Waste Reduction	On-Going
Recycling & Composting	On-Going
Source Separation of Potentially Hazardous Materials	On-Going
Educational & Informational Programs	On-Going

SELECTED SYSTEM

SITING REVIEW PROCEDURES

In this Solid Waste Management Plan Update, Calhoun County has demonstrated five (5) years and ten (10) years of disposal capacity for all solid waste generated within the County. An inventory and description of the disposal facilities that will be used by the County to meet the five (5) year and ten (10) year planning periods are included in the Chapter II Data Base of Solid Waste Disposal Facility Descriptions.

I. Authorized Disposal Area Types

While the County has demonstrated that enough disposal capacity is available within the specified primary disposal region to meet the County's needs for both the long and short term planning periods, regional market conditions may change, causing a significant increase or decrease in available capacity. If the County authorizes one or more facilities which provide ten (10) years or more of sited disposal capacity, then the County Board of Commissioners (BOC) will vote to activate the siting criteria for proposals regarding any type of disposal area. It shall be the responsibility of the Designated Planning Agency (DPA) to demonstrate that 66 months of disposal capacity is available. This will be determined by using available capacity and willingness to accept Calhoun County waste from landfills in the primary disposal region, and with estimates of the County's waste generation requiring disposal. Disposal areas include: a solid waste transfer facility, an incinerator, a sanitary landfill (including expansion of an existing facility), a processing plant, and any other solid waste handling or disposal facility utilized in the disposal of solid waste.

The following procedure will be used to bring proposals to the BOC. The applicant shall notify the DPA and give a brief summary of the proposal. The DPA shall then put the proposal on the next Solid Waste Management Planning Committee (SWMPC) meeting agenda. The applicant shall attend the SWMPC meeting and make a presentation regarding the proposal, addressing but not limited to the following: the type of facility proposed, the proposed location of the facility, the area of Calhoun County that would be serviced by the facility, how the facility is consistent with the goals & objectives of the plan, and how Calhoun County would benefit from the facility. Within 30-90 days of the presentation, the SWMPC will vote on the proposal and make a recommendation to the BOC as to whether or not the siting criteria should be activated. Within 30 days of receiving a recommendation from the SWMPC, the BOC will vote whether or not to activate the siting criteria. Within 15 days of that decision, the applicant shall be notified in writing as to the decision of the BOC by the DPA. In addition, the chief elected official of the host community and all residents and landowners within ½ mile of the proposed site shall be notified in writing.

II. Procedure for Evaluating New Solid Waste Management Facilities

It is the objective of the Calhoun County SWMP to provide for proper disposal of all solid waste generated in Calhoun County. New solid waste facilities, expansions of existing facilities or changes in use of facilities must be evaluated and found consistent with the plan in order to obtain the necessary permits and licenses from the MDEQ. To determine whether a proposed facility is consistent with the plan, the facility will be evaluated using the siting process following:

Any applicant wishing to develop a new solid waste management facility or expansion to an existing facility in Calhoun County, shall submit five (5) copies of a facility site plan, signed by a Michigan registered Civil Engineer to the DPA. An applicant has two choices of procedure by which their siting application may be determined to be consistent with this plan.

SELECTED SYSTEM

A. Local Government Agreement

The first and preferred choice is voluntary for an applicant of a proposed solid waste disposal facility. The applicant and the governing body of the local governmental jurisdiction where a facility is proposed to be sited (the host community), and the county will sign a legally binding civil agreement which shall include the following subjects:

- 1.) A description of environmental protection issues and how these will be addressed.
- 2.) A site plan showing the location on a paved road. If a proposed facility site is not located on an existing "class a" road, language shall be included to provide for upgrading and/or maintenance of the public access road or roads to the site.
- 3.) Other areas of concern that might be negotiated include: noise, hours of operation, litter control, screening or other measures to afford surrounding land uses protection, end use of the site, monetary contributions, public services, and payments for extraordinary use of public services. Any Part 115 variances that a proposed facility might need that are apparent at the time of application for a determination of consistency shall also be considered in making this determination.
- 4.) A means of amending or updating the agreement.
- 5.) Duration of the agreement.
- 6.) Any consequences of a breach of the agreement by either party.
- 7.) The type, extent and location of the facility to be sited.

Host communities are strongly urged to consult with the county planning department, county health department, the public agency(ies) with jurisdiction over any streets or roads providing access to a site, any public works departments whose services might be affected, their own planning entity (department, commission, zoning board) and consultants that might be deemed to be of value. Host communities are cautioned not to address subjects for which the Michigan Department of Environmental Quality exercises preemptive control (ie. air quality). Host communities are also encouraged to avoid subjects which are beyond their technical or practical ability to effectively address.

In the case where a local governmental unit itself is applying to develop a facility at a site under the jurisdiction of another local unit(s) of government, the procedure in 1. above will apply. The applying local unit shall be considered the applicant.

In the case where a local governmental unit itself is applying to develop a facility at a site under their own jurisdiction, it may not enter into an agreement with itself.

As soon as a host community agreement process is initiated, the local unit of government involved shall notify all residents and landowners within ½ mile of the proposed site, in writing, that negotiations are taking place for the siting of a new solid waste facility.

SELECTED SYSTEM

A host community agreement shall first be drafted and negotiated between the host community and the applicant. When each of these two parties feel that the content of the agreement addresses all pertinent issues, then the draft agreement shall be forwarded to the county. The county shall then negotiate with the applicant and add any issues of concern. When the county is satisfied with the content of the agreement, the agreement shall be given back to the local unit of government. The local unit of government Board or Council shall then vote on the agreement. If the agreement is passed and signed, it shall be forwarded to the BOC for approval. Within fifteen (15) days of the BOC signing an agreement, the DPA shall provide a letter to the applicant, the chief elected official of the host community, and all residents and landowners within ½ mile of the site, determining that the proposed facility is consistent with the plan.

If either the local unit of government or the BOC do not vote in favor of the agreement, then the agreement shall be negotiated further until a point when all three parties involved are in agreement. If an agreement between the three parties cannot be reached, then the applicant may choose to go through the County application procedure listed in Section B below, which is always an option so long as the BOC has voted to activate the siting criteria.

A determination of consistency shall provide a one year period wherein the applicant is eligible to initiate a Department of Environmental Quality construction (and/or other applicable) permit applications. If the permit application is denied by the MDEQ, the applicant can amend and resubmit to them for a one-year period. The applicant shall provide the DPA with evidence of this action. If no permit has been initiated or it has been denied by MDEQ, within one year, the applicant will have to reapply to the host community and the county, before applying to the MDEQ.

B. Application to County.

The second choice is a required element of the county solid waste management plan. This is always an option for an applicant wishing to develop a solid waste disposal facility, as long as the BOC has voted to activate the siting criteria or if less than 66 months of disposal capacity is available.

This choice provides a definite procedure of review, a definite time frame, and specific criteria for determining consistency with this plan, and to encourage a harmonious relationship of uses in relation to adjacent uses. The applicant must show the impacts that the plan submitted might have on natural resources, traffic patterns, adjacent land usage and the character of future development.

1. Criteria for Solid Waste Disposal Facilities

- a.) For informational purposes, the following information must be included in proposals for Solid Waste Disposal Facilities:
 - 1.) A name, address, and telephone number for, the applicant including partners and other ownership interests, the property owner(s) of the site, any consulting engineers and any other consultants that will be involved in the project, a designated contact person for the facility developer.

SELECTED SYSTEM

- 2.) A map shall be submitted, which will contain the following information:
 - i.) A legal land description.
 - ii.) Current land use and ground cover.
 - iii.) All principal land features, utilities and structures within 1,000 feet of site.
 - iv.) Current zoning for site and 1 mile radius of surrounding area.
 - v.) All roadways, access roads, their surface material type and locations within 2 miles of proposed access site to facility.
 - vi.) Haul route from access to nearest state trunkline.
- 3.) A topographic map shall be submitted, illustrating the following:
 - i.) Contour intervals of no more than 10 feet for the site.
 - ii.) Soil types and general geographical characteristics within 1,200 feet of the site.
 - iii.) The location of all wetlands as defined by Part 303, Wetlands Protection of Act 451 within 1,200 feet of the site.
 - iv.) The location of the 100 year floodplain as defined by Rule 323.311 of the Administrative Rules of Part 31, Water Resources Protection Act of Act 451, as amended, within 1,200 feet of the site.
 - v.) Any features subject to the isolation distances listed in the siting criteria.
- 4.) The applicant shall estimate waste quantities processed and/or disposed, including the origin or source of the waste and types of waste, if known.
- 5.) The applicant shall provide a statement addressing how the facility is consistent with the Goals and Objectives of the SWMP.
- 6.) The applicant shall provide a statement that will certify an annual capacity reserved for the County.
- 7.) The applicant must provide a traffic safety study for all access roads to the facility. Any road concerns identified by the governmental body (ies) involved, shall be addressed by the applicant in the proposal.
- 8.) The applicant must provide written abatement plans for the control of noise, vibration, odor and litter.
- 9.) The applicant shall provide a written statement agreeing to provide the County and the host community copies of all monitoring reports required by the DEQ and/or other agencies at the time they are submitted to the respective agencies.
- 10.) The applicant shall provide a written statement that the proposed site can be developed in compliance with all applicable federal, state and local laws, and specifically address the non-acceptance of radioactive and/or hazardous wastes not permitted in the proposed facility type.
- 11.) Background and experience in the solid waste industry of any known employees, any certificates of good standing by the State of Michigan or equivalent from other states, is encouraged if available, but not a requirement of this siting criteria.

SELECTED SYSTEM

b.) The following are isolation distances that must be maintained for Solid Waste Disposal Facilities in order to be found consistent with this plan:

- 1.) The active work area for a new disposal facility or the expansion of an existing facility shall not be located closer than 500 feet from navigable rivers and streams, or closer than 1,000 feet from lakes of five (5) acres or more in size, residences or platted residential subdivisions, or public schools existing at the time a developer applies to the County for a determination of consistency.
- 2.) A solid waste disposal facility shall not be constructed closer than 500 feet from any township, municipal, county or state park or any state game area.
- 3.) A solid waste disposal facility shall not be located in a designated historic or archaeological area as defined by the State Historic Preservation Officer.
- 4.) A solid waste disposal facility may not be located within 1,500 feet of any of the following properties. The organization owning and/or operating each of these properties is also included:
 - i.) Kiwanis Recreation Area, Convis Twp., Section 15, Kiwanis
 - ii.) Michigan Audubon Bird Sanctuary, Convis Twp., Section 15, Michigan Audubon Society
 - iii.) Ott Preserve, Emmett Twp., Section 9, Calhoun County
 - iv.) Whitehouse Nature Center, Albion Twp., Section 2, Albion College
 - v.) Binder Park Zoo, Newton Twp., Section 6, Binder Park Zoological Society, Inc.
 - vi.) Wanondoger Creek Preserve, Pennfield Twp., Section 21, Southwestern Michigan Land Conservancy
 - vii.) Lindstrom Conservation Easement, City of Battle Creek, Section 33, Southwestern Michigan Land Conservancy
 - viii.) Pennfield Bog, Pennfield Twp., Section 11, Michigan Nature Association
 - ix.) Fish Lake Bog, Fredonia Twp., Section 26, Michigan Nature Association
 - x.) Flowering Dogwood Plant Preserve, Fredonia Twp., Section 34, Michigan Nature Association
 - xi.) Helmer Brook Plant Preserve, Bedford Twp., Section 33&34, Michigan Nature Association
- 5.) A solid waste disposal facility shall be located on a paved all weather "class a" road. If a facility is not on such a road, the applicant shall agree to provide for upgrading and/or maintenance of the road serving the facility.
- 6.) The site must provide staging and parking areas for trucks, employees, and visitors such that access roads remain free of waiting vehicles.
- 7.) The applicant shall provide an estimate of the number of trucks that will be entering the site and the specific purpose for the entry of each, noting the destination of each truck within the facility.
- 8.) All internal and access roadways from the public roadway to the waste processing area must be paved or maintained to minimize dust and tracking of mud off the site. The applicant must include a signed statement agreeing to this stipulation.

SELECTED SYSTEM

- 9.) Hours of operation at the facility are no longer than 7:00AM to 8:00PM Monday through Friday and 8:00AM to 3:00PM on Saturday. The facility will not operate on Sundays or holidays.

2. Criteria for Sanitary Landfills and Incinerators

In addition, the following conditions are required for Sanitary Landfills or Incinerators to be found consistent with this plan:

- 1.) The applicant must include in the proposal a written statement that an emergency response plan will be submitted within 90 days of construction of facility.
- 2.) A solid waste disposal facility shall not be located within 2000 feet from wells serving type I and type IIa public water supplies, and 800 feet from wells serving type IIb or type III public water supplies.
- 3.) A solid waste disposal facility shall not be located in wetlands as defined in Part 303, Wetlands Protection, of Act 451. Nor shall it be located within 500 feet of regulated wetlands of greater than 50 acres, or within 100 feet of regulated wetlands of 5-49 acres, nor within 100 feet of contiguous wetlands.
- 4.) A solid waste disposal facility shall not be located in the 100 year floodplain of any watercourse as defined by Rule 323.311 of the administrative rules of Part 31, Water Resources Protection, of Act 451.
- 5.) If the proposal is for the expansion of an existing facility, the applicant shall supply in writing a statement of how much additional capacity will be supplied by the expansion and how much longer that will increase the life expectancy of the facility.

Within thirty (30) days of receiving a proposal, the DPA shall notify in writing, all residents and landowners within 1/2 mile of the site, that a proposal has been received. Within sixty (60) days of receiving a proposal, the DPA shall determine whether or not the proposal is consistent with the plan. If the proposal is found to be consistent with the plan, the DPA shall make a recommendation to the Board of Commissioners. The Board of Commissioners shall then have sixty (60) days to approve or deny the proposal. The Board of Commissioners may request that the DPA hold a public hearing during this time period. If the Board approves the proposal, the DPA shall provide a letter to this effect to the applicant, the chief elected official in the host community, and all residents and landowners within 1/2 mile of the site.

If the County DPA or BOC does not determine the proposal to be consistent with this plan, the DPA will within thirty (30) days of that determination, provide a letter to the applicant and the host community, stating what other information is necessary to find the proposal to be consistent with this plan. The applicant will then have sixty (60) days from the notification of this determination, to amend and resubmit the proposal to the DPA.

If the BOC or DPA fails to act upon the proposal or complete the review process within the specified amount of time, then the proposal shall automatically be determined to be consistent with this Plan. The DPA shall provide a letter to the applicant, stating that the proposal has been determined to be consistent with the Plan.

SELECTED SYSTEM

A determination of consistency shall provide a one year period wherein the applicant is eligible to initiate a Department of Environmental Quality construction (and/or other applicable) permit applications. If the permit application is denied by the MDEQ, the applicant can amend and resubmit to them for a one-year period. The applicant shall provide the DPA with evidence of this action. If no permit has been initiated or it has been denied by MDEQ, within one year, the applicant will have to reapply to the County, before applying to the MDEQ.

SELECTED SYSTEM

MANAGEMENT COMPONENT

Identification of Responsible Parties:

The following documents which entities within the County will have management responsibilities over the following areas of the Plan. CCCD = Calhoun County Community Development

Resource Conservation:

Source or Waste Reduction
Product Reuse
Increased Product Lifetime
Decreased Consumption

Responsible Party(ies)

Private Companies & CCCD
Private Companies & CCCD
Private Companies & CCCD
Private Companies & CCCD

Resource Recovery Programs:

Composting

Private Companies, CCCD, City of Marshall,
Village of Athens, City of Albion, City of Battle
Creek, City of Springfield, Village of Homer and
Village of Tekonsha

Recycling

Private Companies, CCCD, Village of Tekonsha,
Homer Recycling, City of Springfield and City
of Battle Creek

Energy Production

Private Companies

Volume Reduction Techniques:

Private Companies

Collection Processes:

Private Companies

Transportation:

Private Companies

Disposal Areas:

Processing Plants
Incineration
Transfer Stations
Sanitary Landfills

Private Companies
N/A
Private Companies
Private Companies

Ultimate Disposal Area Uses:

Private Companies & CCCD

Local Responsibility for Plan Monitoring & Enforcement:

CCCD

Educational & Information Programs:

CCCD

SELECTED SYSTEM

LOCAL ORDINANCES AND REGULATIONS AFFECTING SOLID WASTE DISPOSAL

This Plan's relationship to local ordinances and regulations within the County is described in the options marked below:

1. Section 11538 (8) and rule 710 (3) of Part 115 prohibits enforcement of all County and local ordinances and regulations pertaining to solid waste disposal areas unless explicitly included in an approved Solid Waste Management Plan. Local regulations and ordinances intended to be part of this Plan are specified below and the manner in which they will be applied described.

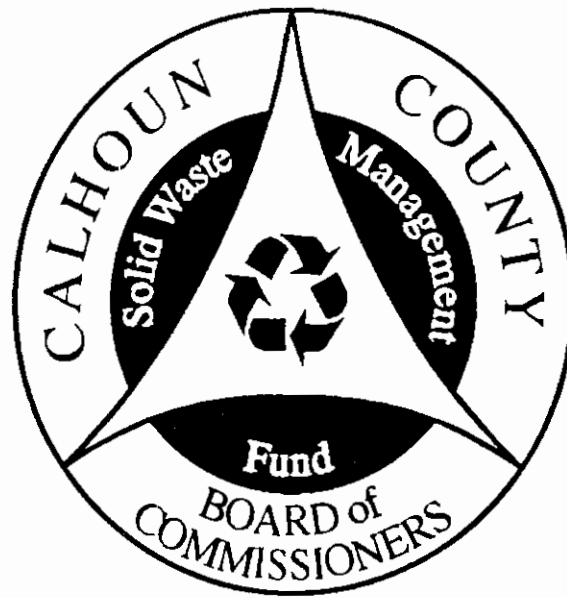
NA

2. This Plan recognizes and incorporates as enforceable the following specific provisions based on existing zoning ordinances:

NA

3. This Plan authorizes adoption and implementation of local regulations governing the following subjects by the indicated units of government without further authorization from or amendment to the Plan:

- Certain ancillary construction details, such as landscaping and screening
- Hours of operation
- Noise, litter, odor, and dust control
- Operating records and reports
- Facility security
- Monitoring of wastes accepted and prohibited
- Composting and recycling



CHAPTER IV
CAPACITY CERTIFICATION

CAPACITY CERTIFICATION

Every County with less than ten (10) years of capacity identified in their Plan is required to annually prepare and submit to the DEQ an analysis and certification of solid waste disposal capacity validly available to the County. This certification is required to be prepared and approved by the County Board of Commissioners.

X This County has more than ten (10) years capacity identified in this Plan. Calculation of this information follows. An annual certification process is not included in this Plan.

For the ten-year period 2000-2010, the total waste generation from Calhoun County requiring disposal is estimated at 6,421,155 cubic yards, based on the information provided on page II-1. This equates to an annual average of 642,155 cubic yards requiring disposal.

The County currently relies on the C&C Landfill for disposal of approximately 44% of its waste. The County has a civil agreement with the C&C Landfill, in which the landfill guarantees capacity for the County's waste for a period of 8 years, which began in 1995. In addition, an amendment to this agreement has recently been reached, which will guarantee the County capacity for a period of ten years from the date that a new construction permit is issued by the Department of Environmental Quality for a second expansion to the landfill. This permit has not yet been applied for, but will be in the near future. It is anticipated that the County will continue to rely on C&C for a comparable amount of waste disposal during the next ten-year period.

The other facility that is utilized for a large portion of Calhoun County's waste is Westside RDF in St. Joseph County. That facility is authorized to accept up to 1,500,000 cubic yards of solid waste per year. For the past three years, Calhoun County has disposed of an average of 367,191 cubic yards per year at Westside. This equals just under 25% of the total annual available capacity at this landfill. It is anticipated that Calhoun County will continue to export approximately 56% of its waste to Westside, which will amount to approximately 378,848 cubic yards annually, which equals just over 25% of the annual available capacity at this landfill. Over the past three years, Westside has not reached their annual capacity limit of 1,500,000 cubic yards; disposal at Westside by Calhoun County should not pose a problem in the future.

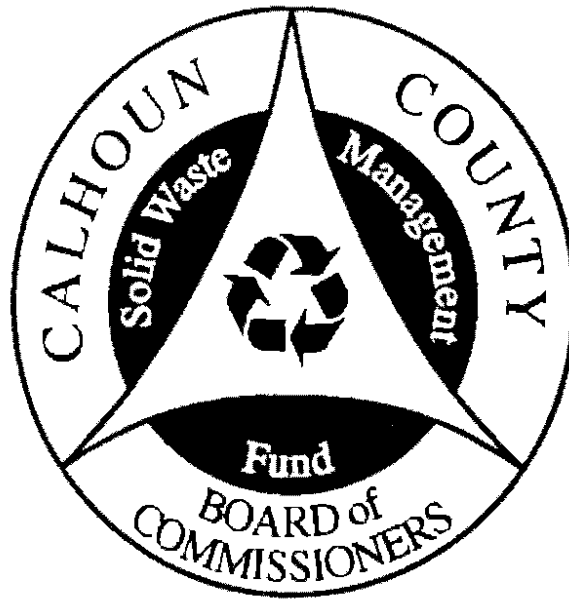
Facility Name	Waste Disposal/yr.	Current Capacity, cubic yards	Estimated Lifetime
C&C Landfill	282,531 Cubic yards	*14,000,000	*14 years
Westside RDF	359,584 Cubic yards	14,790,000	12 years
TOTAL	642,115 Cubic yards		

*Includes an anticipated expansion of the landfill within the ten-year planning period.

In addition to these two facilities, the following facilities within the primary disposal region have agreed to dispose of waste generated in Calhoun County:

Adrian Landfill, Inc. will accept up to 1,029,600 cubic yards per year
South Kent County Landfill will accept up to 150 cubic yards per day
Ottawa County authorizes disposal of up to 4,500,000 cubic yards annually at landfills located within the county

With usage at the above-mentioned facilities, Calhoun County is able to certify that ten years of disposal capacity is available within the primary disposal region.



APPENDIX A
ADDITIONAL INFORMATION REGARDING
THE SELECTED SYSTEM

APPENDIX A

DETAILED FEATURES OF RECYCLING AND COMPOSTING PROGRAMS

List below the types and volumes of material available for recycling or composting.

Material	Residential Recovery Potential	Residential Waste Composition	Business Recovery Potential	Business Waste Composition
Newsprint	80%	9%	80%	4%
Office Paper	25%	7%	65%	9%
Cardboard	50%	6%	80%	32%
Magazines	40%	3%	25%	4%
Boxboard	40%	6%	30%	3%
Glass	50%	7%	40%	2%
Steel	50%	4%	90%	4%
Aluminum	80%	1%	90%	1%
Other Metals	0.0%	1%	80%	1%
HDPE	50%	1%	50%	1%
PET	50%	1%	50%	1%
Plastic Film	0.0%	3%	25%	2%
Polystyrene	30%	1%	50%	1%
Other Plastics	0.0%	3%	30%	4%
Textiles	0.0%	4%	30%	3%
Food Waste	60%	11%	20%	8%
Yard Waste	90%	21%	90%	8%
Wood Waste	30%	4%	75%	6%
Rubber	50%	1%	50%	1%
Other	0.0%	7%	20%	7%
Total	50%		60%	

From Southwest Michigan Recycling Market Development Strategy: Part II Background, May 1995, prepared by Resource Recycling Systems of Ann Arbor and Public Policy Associates of Lansing.

The following briefly describes the processes used or to be used to select the equipment and locations of the recycling and composting programs included in the Selected System. Difficulties encountered during past selection processes are also summarized along with how those problems were addressed.

Equipment Selection

Individual municipalities and private industry are responsible for equipment selection.

Site Availability & Selection

Individual municipalities and private industry are responsible for selection and development of their own sites.

APPENDIX A

ADDITIONAL INFORMATION REGARDING THE SELECTED SYSTEM

EVALUATION OF RECYCLING

The following provides additional information regarding implementation and evaluations of various components of the Selected System.

The recycling and composting systems in Calhoun County continue to do well and are expected to evolve and improve in the future depending on markets and prices of recycled materials. Several factors relating to recycling, including potential impediments, funding, market conditions, and institutional arrangements are addressed in Section III of this Plan.

APPENDIX A

COORDINATION EFFORTS

Solid Waste Management Plans need to be developed and implemented with due regard for both local conditions and the state and federal regulatory framework for protecting public health and the quality of the air, water, and land. The following states the ways in which coordination will be achieved to minimize potential conflicts with other programs and, if possible, to enhance those programs.

It may be necessary to enter into various types of agreements between public and private sectors to be able to implement the various components of this solid waste management system. The known existing arrangements are described below which are considered necessary to successfully implement this system within the County. In addition, proposed arrangements are recommended which address any discrepancies that the existing arrangements may have created or overlooked. Since arrangements may exist between two or more private parties that are not public knowledge, this section may not be comprehensive of all the arrangements within the County. Additionally, it may be necessary to cancel or enter into new or revised arrangements as conditions change during the planning period. The entities responsible for developing, approving, and enforcing these arrangements have been noted.

The Calhoun County Board of Commissioners and Browning Ferris Industries, Inc. have entered into an agreement regarding community host fees, authorized capacity, service area, and other matters.

COST & FUNDING

The following estimates the necessary management, capital, and operational and maintenance requirements for each applicable component of the solid waste management system. In addition, potential funding sources have been identified to support those components.

System Component	Estimated Cost	Potential Funding Sources
Resource Conservation Efforts	NA	Private & Public
Resource Recovery Programs	135,000	User Fee Agreement
Volume Reduction Techniques	NA	Private
Collection Processes	NA	Private
Transportation	NA	Private
Disposal Areas	NA	Private
Future Disposal Area Uses	NA	Private & Public
Management Arrangements	55,000	County Administration
Educational & Informational Programs	NA	Private & Public

EVALUATION SUMMARY OF THE SELECTED SYSTEM

The solid waste management system has been evaluated for anticipated positive and negative impacts on the public health, economics, environmental conditions, siting considerations, existing disposal areas, and energy consumption and production which would occur as a result of implementing this Selected System. In addition, the Selected System was evaluated to determine if it would be technically and economically feasible, whether the public would accept this Selected System, and the effectiveness of the educational

APPENDIX A

COMPOSTING OPERATING PARAMETERS:

The following identifies some of the operating parameters which are to be used or are planned to be used to monitor the composting programs.

Existing Programs:

<u>Program Name</u>	<u>pH</u> <u>Range</u>	<u>Heat Range</u>	<u>Other Parameter</u>	<u>Measurement Unit</u>
City of Albion	NA	NA	NA	NA
Village of Athens	NA	NA	NA	NA
Calhoun County Community Compost Ctr.	NA	NA	NA	NA
City of Battle Creek	NA	NA	NA	NA
Village of Homer	NA	NA	NA	NA
City of Marshall	NA	NA	NA	NA
City of Springfield	NA	NA	NA	NA
Village of Tekonsha	NA	NA	NA	NA

Proposed Programs:

None

APPENDIX A

EVALUATION SUMMARY SOLID WASTE MANAGEMENT SYSTEM ALTERNATIVES

	System No. 1	System No. 2	System No. 3
Technical Feasibility	A	A	A
Economic Feasibility	S	A	A
Energy Consumption/ Production	A	A	A
Land Access/ Transportation	S	W	S
Environmental Impacts	W	W	S
Public Health Effects	A	W	S
Public Acceptability	S	S	S
Total Points	NA	NA	NA

Ranked: S = Strong; A = Average; W = Weak

ADVANTAGES AND DISADVANTAGES OF THE SELECTED SYSTEM:

Advantages:

1. Selected System is publicly accepted.
2. Selected System represents an integrated approach to waste management.
3. Waste reduction, recycling, and composting efforts are enhanced.
4. Encourages public and private sector partnerships.
5. Solid waste services are provided at a reasonable cost to residents and businesses.

Disadvantages:

1. Landfilling is the predominant method of disposal.
2. Lack of standardization of waste services in communities is not always cost effective.
3. May not present the most convenient recycling opportunities.

APPENDIX A

and informational programs. Impacts to the resource recovery programs created by the solid waste collection system, local support groups, institutional arrangements, and the population in the County in addition to market availability for the collected materials and the transportation network were also considered. Impediments to implementing the solid waste management system are identified and proposed activities which will help overcome those problems are also addressed to assure successful programs. The Selected System was also evaluated as to how it relates to the goals and objectives outlined in Section I. The following summarized the findings of this evaluations and the basis for selecting this system.

The Calhoun County Solid Waste Management Planning Committee used the following questions to evaluate each solid waste management system alternative.

Technical feasibility: Can the alternative be implemented using presently available technology? If not, is the needed technology likely to be commercially available in the near future?

Economic feasibility: How much would it cost to implement the alternative? Is this cost greater than the financial capability of existing public or private entities? What are the costs associated with operation and maintenance? Consider the costs associated with obtaining the land, structures (new or existing and any necessary modifications), and necessary equipment. How are facility development, operation, and maintenance costs to be provided?

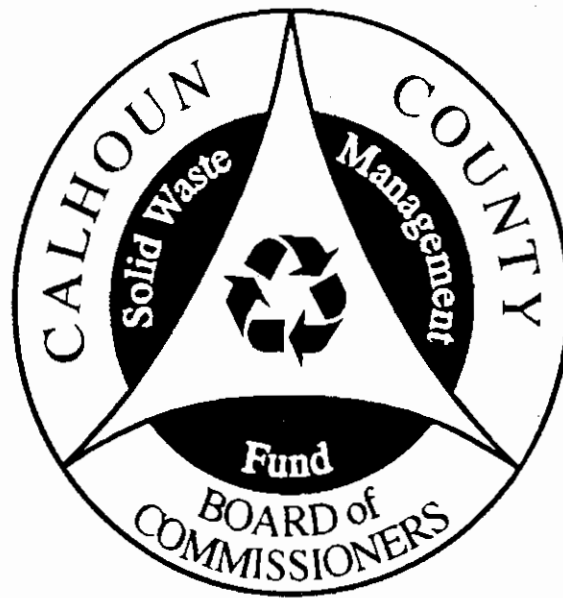
Access to Land and Transportation Routes: Does the alternative require the acquisition of land to develop new facilities? Would new or existing facilities be efficiently located? Are there existing all-season roads in proximity to existing or proposed facilities? If not, what is the extent of the road improvements that would be required?

Energy Consumption/Production: Is the alternative energy efficient for transportation and operation? Will energy be produced as part of the disposal process? If so, would income cover costs of energy recovery? Which energy recovery process would be utilized; incineration, use of solid waste as a supplemental fuel in boilers, or production of gaseous, liquid or solid refuse derived fuels (RDF)? What is the capacity of these processes to utilize solid waste?

Environmental Impacts: What environmental impacts would result from the implementation of the alternative? Would these result from the continuation of an existing facility or the construction of a new one? Would implementation result in long term environmental impacts associated with the operation and maintenance of solid waste facilities?

Public Health Effects: Would implementation of the alternative create, continue, or mitigate public health hazards associated with improper handling or disposal of solid waste?

Public Acceptability: Is the proposed alternative likely to be acceptable to local residents? Is the alternative likely to be politically acceptable to local municipalities? Would the alternative comply with applicable state laws, particularly Act 451?



APPENDIX B
NON-SELECTED SYSTEMS

APPENDIX B

SYSTEM COMPONENTS:

The following briefly describes the various components of the non-selected systems.

Resource Conservation Efforts:

System 1: Continue County's role in implementation of recycling programs; no plans to expand recycling opportunities within the County

System 2: New disposal area may remove public incentive to continue waste reduction and recycling efforts.

Volume Reduction Techniques:

System 1: This component is determined by the private sector.

System 2: This component is determined by the private sector.

Resource Recovery Programs:

System 1: Would maintain existing programs while existing programs may need improvements to maximize resource recovery.

System 2: Plans for new disposal area could include new materials recovery programs/facility.

Collection Processes:

System 1: This component is determined by the private sector.

System 2: This component is determined by the private sector.

Transportation:

System 1: This component is determined by the private sector.

System 2: This component is determined by the private sector.

Disposal Areas:

System 1: County would continue to dispose of waste at C&C Landfill and neighboring counties landfills.

System 2: Public acceptance of a new sanitary landfill or expansion of an existing facility may not be well received.

Institutional Arrangements:

Systems 1 & 2: Maintain existing agreements between the County, local units of governments, and owner/operators of disposal areas to provide funding for waste reduction, recycling, and composting programs.

Educational and Informational programs:

Systems 1 & 2: Maintain current public education and information programs through efforts of County Solid Waste Specialist Position.

Capital, Operational, and Maintenance Costs:

System 1: Subsidized by 3% surcharge collected on each cubic yard disposed of at the C&C Landfill.

System 2: County would need to pursue opportunities with new developments to establish host community or user fee agreements.

APPENDIX B

NON-SELECTED SYSTEMS

Before selecting the solid waste management system contained within this Plan update, the County developed and considered two other alternative systems. The following section provides a brief description of these non-selected systems and an explanation why they were not selected.

APPENDIX B

EVALUATION SUMMARY OF NON-SELECTED SYSTEM:

Each non-selected system was evaluated to determine its potential of impacting human health, economics, environmental, transportation, siting, and energy resources of the County. In addition, it was reviewed for technical feasibility, and whether it would have public support. Following is a brief summary of that evaluation along with an explanation of why the systems were not to be implemented.

The non-selected systems were not considered to have the most effective components of a management system that would meet the goals and objectives contained in this Plan. The non-selected systems maintained the status quo while increasing the County's dependence on landfill disposal. These systems suggest little to no changes or expansions in the current system.

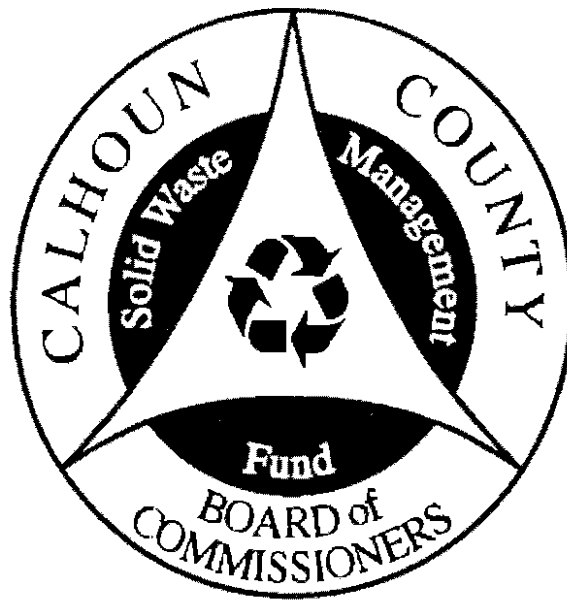
ADVANTAGES AND DISADVANTAGES OF THE NON-SELECTED SYSTEM:

Advantages:

1. Current system is publicly accepted.
2. Solid waste services are provided at a reasonable cost.

Disadvantages:

1. Landfilling is the predominant disposal method.
2. Possible decrease in the materials recovered from the waste stream.
3. Land commitment for new disposal areas.
4. County would continue to be host of disposal areas slated for regional use.



APPENDIX C
PUBLIC PARTICIPATION AND APPROVAL

APPENDIX C

PUBLIC PARTICIPATION AND APPROVAL

The following summarizes the process which was used in the development and local approval of the Plan including a summary of public participation in those processes, documentation of each of the required approval steps, and a description of the appointment of the solid waste management planning committee along with the members of that committee.

The Solid Waste Management Planning Committee held monthly meetings, in which the Solid Waste Management Plan was discussed. Copies of the official Minutes of those meetings are available at the central repository listed on the cover page of this Plan.

The Solid Waste Management Planning Committee voted at the meeting of Monday, July 12, 1999 to release the draft Plan for the 90-day public review period. A portion of that meeting's minutes is attached.

A letter was sent to all interested parties and local units of government, along with a copy of the draft Plan notifying them of the 90-day public review period. A copy of that letter and the mailing list of interested parties are attached.

Notice of the 90-day public review period including the date of the public hearing was published in 3 newspapers throughout the County. A copy of those three advertisements is attached.

A public hearing was held on Monday, October 4, 1999. A copy of the minutes of the public hearing is attached.

Written comments were received from the attorneys representing the Michigan Waste Industries Association, and also Calhoun County's Attorney during the 90-day public review period. Copies of these comments are attached. Comments received from the Michigan Department of Environmental Quality during the 90-day public review period are included in Appendix D.

Several verbal comments were received during the 90-day public review period which were discussed during the meetings of the Solid Waste Management Planning Committee and are available for review in the minutes of those meetings.

The Solid Waste Management Planning Committee approved the Plan and made a recommendation that it be forwarded to the Calhoun County Board of Commissioners for approval at the Monday, November 29, 1999 meeting. A portion of those meeting minutes is attached.

The Calhoun County Board of Commissioners approved the Solid Waste Management Plan and adopted resolution # 312-1999 at the meeting of Thursday, December 16, 1999. A copy of that resolution is attached.

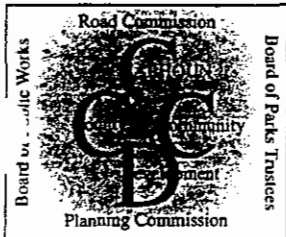
A memo was sent to all local units of government in the County on December 16, 1999, along with a sample resolution, asking that their Board vote on the Plan. Copies of resolutions received from 19 of the 27 local units of government in the County (67%) are attached.

A list of the members of the Calhoun County Solid Waste Management Planning Committee and also the committee's bylaws are attached.

Excerpt from the July 12, 1999 Minutes of the Calhoun County Solid Waste Management Planning Committee:

A motion was made by Arnold Arquette, supported by Bart Cook to approve the Solid Waste Management Plan draft with corrections. A roll call vote was taken with unanimous approval - Michael Nofs abstaining. Motion carried.

A new draft will be typed incorporating all changes/corrections and it will be sent out for the ninety- (90) day public review period. Ms. Goodnoe stated that a thirty- (30) day notice must be given prior to the public hearing. The committee will attend the public hearing, consider any changes and then vote on the Plan. The public hearing will tentatively be held October 4th at 6:30 p.m. in the County Commissioner's chambers.



CALHOUN COUNTY COMMUNITY DEVELOPMENT

ROAD COMMISSION ♦ PLANNING COMMISSION

BOARD OF PUBLIC WORKS ♦ PARKS TRUSTEES ♦ SOLID WASTE

13300 Fifteen Mile Road ♦ Marshall, Michigan 49068

MEMORANDUM

Phone Numbers

(616) 781-9841
(800) 781-5512
(616) 781-6101 FAX

County Commission

Marvin B. Austin
Barbara A. Frederick
Ronald L. Ivey
David P. Mange
Michael L. Nofs
George T. Perrett
Kurt L. Rhode

Road Commission

Albert C. Bobrofsky
Chester E. Travis
David D. Veramay

Planning Commission

C. Larry Clark
Robert Herwarth
Gordon Peckham
Jeff Pfannes
Kurt L. Rhode
Dian Schubel
Lynn Smith

- ▶ Roads
- ▶ Parks
- ▶ Planning
- ▶ Public Works

- ▶ Solid Waste
- ▶ Remonumentation
- ▶ Recycling Services
- ▶ Housing Rehabilitation
- ▶ Soil Erosion and Sedimentation Control
- ▶ Custer Greens Golf Course



To: Interested parties
From: Whitney Goodnoe, Calhoun County Solid Waste Specialist
Date: July 29, 1999
Re: Release of draft Calhoun County Solid Waste Management Plan Update

WGH

On July 12, 1999 the Calhoun County Solid Waste Management Planning Committee voted to release the draft Solid Waste Management Plan Update for the 90-day public review period, pending several minor changes that were discussed during the meeting of that same date.

Written comments will be accepted on this draft plan from August 2, 1999 until November 5, 1999. Written comments should be sent to the following:

Calhoun County Community Development
Attn: Whitney Goodnoe, Solid Waste Specialist
13300 Fifteen Mile Road
Marshall, MI 49068
E-mail: wgoodnoe@internet1.net

A public hearing is scheduled for Monday, October 4, 1999 at 7:00 PM. This hearing will be located in the Calhoun County BoardRoom on the 3rd floor of the County Building, 315 W. Green Street, Marshall, MI. Anyone wishing to voice concerns and/or comments on the draft plan will be able to do so at this hearing.

Copies of the draft plan are available for viewing at the following locations:

- Calhoun County Community Development, 13300 Fifteen Mile Rd., Marshall
- Albion Public Library, 501 S. Superior St., Albion
- Athens Community Library, 106 E. Burr St., Athens
- Burlington Township Library, 135 Elm St., Burlington
- Homer Public Library, 104 S. Hillsdale, Homer
- Marshall District Library, 124 W. Green St., Marshall
- Tekonsha Public Library, 109 E. Canal St., Tekonsha
- Willard Public Library, 7 W. Van Buren St., Battle Creek

Please feel free to contact our office at 616-781-9841 with any questions you may have. Thank you.

Building A Better County Through Responsive Leadership

Thomas Frank
Supervisor, Albion Township
28051 F Drive South
Albion, MI 49224

Stephen Irons
Supervisor, Athens Township
130 East Burr Oak Street
Athens, MI 49011

Ann Armstrong
Supervisor, Bedford Charter Township
115 South Uldriks Drive
Battle Creek, MI 49017

Brian AcMoody
Supervisor, Burlington Township
135 North Elm Street
Burlington, MI 49029

Les Stark
Supervisor, Clarence Township
27052 R Drive North
Albion, MI 49224

Bruce Mittelstadt
Supervisor, Clarendon Township
21947 R Drive South
Homer, MI 49245

Joe Bramble
Supervisor, Convis Township
19900 16 Mile Road
Marshall, MI 49068

Athol Hazen
Supervisor, Eckford Township
21000 F Drive South
Marshall, MI 49068

Jim Demarest
Supervisor, Emmett Charter Township
620 Cliff Street
Battle Creek, MI 49014

David Sebring Sr.
Supervisor, Fredonia Township
8803 17 Mile Road
Marshall, MI 49068

Gerald Shaffer
Supervisor, Homer Township
130 East Main Street
Homer, MI 49245

Arthur Farmer
Supervisor, Lee Township
20491 19-1/2 Mile Road
Marshall, MI 49068

Mike Lazarov
Supervisor, Leroy Township
8156 4 Mile Road
East Leroy, MI 49051

Helen Lindsey
Supervisor, Marengo Township
13995 23 Mile Road
Albion, MI 49224

Eugene Hamaker
Supervisor, Marshall Township
13551 15 Mile Road
Marshall, MI 49068

Sue Ann Jessup
Supervisor, Newton Township
7988 G Drive South
Ceresco, MI 49033

Judy Mackinder
Supervisor, Pennfield Charter Township
20260 Capital Avenue, NE
Battle Creek, MI 49017

Ken Lauer
Supervisor, Sheridan Township
13355 29 Mile Road
Albion, MI 49224

Nelson Shedd
Supervisor, Tekonsha Township
127 E Jackson, P.O. Box 91
Tekonsha, MI 49092

Michael Alverson
President, Village of Athens
129 East Burr Oak
Athens, MI 49011

John Hagaman
President, Village of Burlington
P.O. Box 99
Burlington, MI 49029

Todd Campbell
Manager, Village of Homer
P.O. Box 155
Homer, MI 49245

Ronald Johnson
President, Village of Tekonsha
P.O. Box A
Tekonsha, MI 49092

Michael Herman
City Manager, City of Albion
112 West Cass Street
Albion, MI 49224

Merrill Stanley
City Manager, City of Battle Creek
P.O. Box 1717
Battle Creek, MI 49016

Maurice Evans
City Manager, City of Marshall
323 West Michigan Avenue
Marshall, MI 49068

James Jenkins
City Manager, City of Springfield
601 Avenue A
Springfield, MI 49015

Mary Jones
Allegan County Resource Recovery
Health Dept., 2233 33rd St.
Allegan, MI 49010

Dr. V. Harry Adrounie
Barry County Solid Waste Planning Comm.
110 West Center Street
Hastings, MI 49058

John Gruchot
Berrien County Planning & DPW
811 Port Street, Room 105
St. Joseph, MI 49085

Charlene Burch
Branch County SWMPC
31 Division Street
Coldwater, MI 49036

Terry Proctor
Cass County Administrator
120 North Broadway
Cassopolis, MI 49031

Ann Mason
Clinton County Dept. Waste Mgt.
100 East Cass
St. Johns, MI 48879

Marc Hill
Ontonagon County Resource Recovery Dept.
1045 Independence Blvd.
Charlotte, MI 48813

Amy Brown
Hillsdale County Board of Commissioners
County Courthouse, 29 North Howell
Hillsdale, MI 49242

James Wilson
Ingham County Health Department
P.O. Box 30161
Lansing, MI 48909

Michele Stremler
Ontonagon County Resource Recovery Project
100 Library Street
Ionia, MI 48846

Charles Reisdorf
Region II Planning Commission
County Tower Bldg., 16th Floor
120 West Michigan Avenue
Jackson, MI 49201

Curt A. Kemppainen
Kent County BPW
1500 Scribner Ave., NW
Grand Rapids, MI 49504

Tim Anderson
Lawrence County Planning Commission
Region II Planning Commission
20 West Michigan Ave., 16th Floor
Jackson, MI 49201

Robert Ribbens
Muskegon County DPW
990 Terrace
Muskegon, MI 49442

Darwin Baas
Ottawa County Health Dept.
12251 James Street, Suite 300
Holland, MI 49424

Judy West
St. Joseph County Administrator
125 W. Main, P.O. Box 277
Centreville, MI 49032

Cathy Founie
Van Buren County MSU Extension
801 Hazen St., Suite A
Paw Paw, MI 49079

Susan Todd
Washtenaw County BPW
P.O. Box 8645
Ann Arbor, MI 48107-8645

Dean Holub
Kalamazoo Metropolitan County Planning
201 West Kalamazoo Avenue
Kalamazoo, MI 49007

Rand Bowman
Southcentral MI Planning Council
P.O. Box 2137
Portage, MI 49081-2137

Jaffe, Raitt, Heuer & Weiss
Arthur Siegal
One Woodward Avenue, Suite 2400
Detroit, MI 48226

Mr. Jim Johnson
Solid Waste Management Unit
Solid Waste Program Section
Waste Management Division, MDEQ
P.O. Box 30241
Lansing, MI 48909

Union City Village
208 N. Broadway
Union City, MI 49094

Albion Public Library
501 S. Superior St.
Albion, MI 49224

Athens Community Library
106 E. Burr Oak Street
Athens, MI 49011

Burlington Township Library
135 Elm St., P.O. Box 39
Burlington, MI 49029

Homer Public Library
104 S. Hillsdale
Homer, MI 49245

Marshall District Library
124 W. Green Street
Marshall, MI 49068

Tekonsha Public Library
109 E. Canal St.
Tekonsha, MI 49092

Willard Public Library
7 W. Van Buren Street
Battle Creek, MI 49017

Lisa Hagerly
Emcon
33101 Schoolcraft
Livonia, MI 48150

Paul Sgriccia
Emcon
33101 Schoolcraft
Livonia, MI 48150

John Myers
BFI
10690 6 Mile Road
Northville, MI 48167

Full Packet SW

Terry Guerin
Granger Co.
PO Box 23063 3535 Wood Road
Lansing, MI 48909

Steve Essling
City Environmental
PO Box 336
Hastings, MI 49058

Mr. Gene Klisiak DVP
BFI/ C&C Landfill
14800 P Drive North
Marshall, MI 49048

Arnold Arquette
14300 N Drive North
Marshall, MI 49068

Lewis Cooper
Defense Logistics Service Center
74 N Washington Ave
Battle Creek, MI 49017-3084

Martha Knorek
22544 20 Mile road
Olivet, MI 49076

Hillard Freiny
Cereal City Recycling
15160 6 1/2 Mile Road
Battle Creek, MI 49017

John Rafłowski
Hayes-Albion
601 N. Albion Street
Albion, MI 49224

Ted Havens
Environmental Health
190 E Michigan Ave
Battle Creek, MI 49017

Judy Huggett
20111 15 Mile Road
Marshall, MI 49068

Sue Ann Jessup
Supervisor, Newton Twp
7173 J Drive South
Burlington, MI 49029

David (Mike) Kipp
Kipp Refuse
1185 N Raymond Road
Battle Creek, MI 49017

Mike Nofs
Calhoun County Commissioner
14577 N Drive North
Marshall, MI 49068

Terri Zick
BFI
5400 Cogswell Road
Wayne, MI 48184

Bart Cook
City of Marshall
325 W Michigan Avenue
Marshall, MI 49068

Lisa Johnson
84 East Kingman Ave
Battle Creek, MI 49014

Thomas Funke
59 E Territorial Road
Battle Creek, MI 49015

Peter J Herlofsky
County Administrator

Keeley Taylor
Assistant County Administrator

Wendee Woods

Roger Andrews
Livingston Co. Env. Health
Department
2300 E Grand River
Howell, MI 48843

John LaForge
12350 15 1/2 Mile Road
Marshall, MI 49068

Whitney Goodnoe

Marilyn Hennon
27996 L. Drive N
Albion, MI 49224

PUBLIC NOTICE

A 90-day public review period will be held, August 2 - November 5, 1999, for the draft Calhoun County Solid Waste Management Plan Update. Written comments will be accepted at Calhoun County Community Development, 13300 Fifteen Mile Road, Marshall, MI 49068.

A public hearing will be held on Monday, October 4, 1999 at 7:00 PM in the Calhoun County Board Room, County Building, 315 W. Green Street, Marshall, MI.

Copies of the draft plan are available for viewing by the general public at the following locations: Calhoun County Community Development, Albion Public Library, Athens Community Library, Burlington Township Library, Homer Public Library, Marshall District Library, Tekonsha Public Library, and Willard Public Library.

Marshall Advisor - 8-4-99

PUBLIC NOTICE

A 90-day public review period will be held, August 2 - November 5, 1999, for the draft Calhoun County Solid Waste Management Plan Update. Written comments will be accepted at Calhoun County Community Development, 13300 Fifteen Mile Rd., Marshall, MI 49068.

A public hearing will be held on Monday, October 4, 1999 at 7:00 PM in the Calhoun County Board Room, County Building, 315 W. Green St., Marshall, MI.

Copies of the draft plan are available for viewing by the general public at the following locations: Calhoun County Community Development, Albion Public Library, Athens Community Library, Burlington Township Library, Homer Public Library, Marshall District Library, Tekonsha Public Library, and Willard Public Library.

PUBLIC NOTICE

A 90-day public review period will be held, August 2 - November 5, 1999, for the draft Calhoun County Solid Waste Management Plan Update. Written comments will be accepted at Calhoun County Community Development, 13300 Fifteen Mile Road, Marshall, MI 49068.

A public hearing will be held on Monday, October 4, 1999 at 7:00 PM in the Calhoun County Board Room, County Building, 315 W. Green Street, Marshall, MI.

Copies of the draft plan are available for viewing by the general public at the following locations: Calhoun County Community Development, Albion Public Library, Athens Community Library, Burlington Township Library, Homer Public Library, Marshall District Library, Tekonsha Public Library, and Willard Public Library.

Battle Creek Shopper - 8-5-99

**SOLID WASTE MANAGEMENT PLAN
PUBLIC HEARING
MONDAY, October 4, 1999
7:00 P.M.
Calhoun County Commission Chambers
315 W. Green Street
Marshall, MI 49068**

SOLID WASTE COMMITTEE MEMBERS PRESENT: Steve Essling, Marilyn Hennon, Tom Funke, Arnold Arquette, John LaForge, Lewis Cooper, Mike Nofs, Lisa Johnson

County Staff and Guests: Whitney Goodnoe, Jude Themm, Dennis Randolph – Calhoun County Community Development; Terry Guerin – Granger; Tom Moore – C&C Landfill

Vice-Chairperson Mike Nofs of the Solid Waste Management Planning Committee opened the Public Hearing at 7:05 p.m.

Immediately following the Pledge of Allegiance led by Mike Nofs, roll call of the Solid Waste Management Planning Committee was taken indicating a quorum of the Committee was present for the Public Hearing.

Vice-Chairperson Nofs requested public comment on the proposed Solid Waste Management Plan. There was no public response to the request.

The Public Hearing on the Solid Waste Management Plan was closed at 7:10 p.m. by Vice-Chairperson Nofs.

LAW OFFICES
HONIGMAN MILLER SCHWARTZ AND COHN

2290 FIRST NATIONAL BUILDING
660 WOODWARD AVENUE
DETROIT, MICHIGAN 48226-3583

FAX (313) 465-8000

JEFFREY L. WOOLSTRUM
TELEPHONE: (313) 465-7612
FAX: (313) 465-7613
E-MAIL: jlw@honigman.com

LANSING MICHIG.

September 2, 1999

Ms. Whitney L. Goodnoe
Calhoun County Solid Waste Planning Committee
13300 Fifteen Mile Road
Marshall, MI 49068

SEP 7 1999

RE: Calhoun County Solid Waste Management Plan Update

Dear Ms. Goodnoe:

We are attorneys representing the Michigan Waste Industries Association ("MWIA"). MWIA is a Michigan nonprofit corporation representing approximately 50 individual Michigan-based solid waste companies, some of which operate within Calhoun County. MWIA submits the enclosed document ("Comments") for inclusion in the administrative record of public comments on Calhoun County's draft solid waste management plan update (the "Plan"). The Comments address MWIA's concerns with certain provisions that may be contained in the Plan that exceed Calhoun County's authority. Calhoun County does not have unlimited authority to include provisions in a solid waste management plan. Rather, Calhoun County only has such powers that have been granted by the Michigan Legislature. Although the Legislature authorized Calhoun County to prepare a solid waste management plan under Part 115 of the Natural Resources and Environmental Protection Act ("Part 115"), Calhoun County may only include in the Plan those provisions that are expressly identified in Part 115 or the administrative rules promulgated by the Michigan Department of Environmental Quality ("MDEQ") under Part 115 (the "Part 115 Rules"). The provisions discussed in the Comments are clearly not authorized under Part 115 or the Part 115 Rules.

To the extent the Plan contains any of the provisions discussed in the Comments, or incorporates such provisions into the Plan by reference to other documents, MWIA requests that Calhoun County either: (1) revise the Plan to eliminate the offending provisions; or (2) provide a written response to MWIA's concerns in the Plan's appendix, as required by Rule 711(g) of the Part 115 Rules, which sets forth the basis for retaining such provisions in the Plan. Feel free to call me with any questions regarding MWIA's Comments.

Sincerely,



Jeffrey L. Woolstrum

cc: Mr. Jim Sygo, Chief Waste Management Division, MDEQ
Mr. Terry Guerin, President -- MWIA
DET_B\183799.1

**MICHIGAN WASTE INDUSTRIES ASSOCIATION
GENERAL COMMENTS ON
COUNTY SOLID WASTE MANAGEMENT PLAN UPDATES**

Michigan Waste Industries Association ("MWIA") submits the following general comments on the contents of solid waste management plan updates that are currently being prepared by various counties under the authority of Part 115 of the Natural Resources and Environmental Protection Act ("Part 115") and the administrative rules promulgated thereunder (the "Part 115 Rules"). The discussion contained in this document is divided into two main sections. The first section discusses a county's limited authority to regulate matters in general, and the Legislature's narrow delegation of authority under Part 115 to include provisions in a solid waste management plan. In light of this narrow delegation of authority, the second section reviews eleven provisions that have appeared in one or more of the draft solid waste management plan updates. These eleven provisions generally relate to:

- disposal fees;
- disposal area operating criteria;
- mandated recycling;
- mandated data collection;
- preservation of more than 10 years of disposal capacity;
- disposal area volume caps;
- identification of specific disposal areas that may accept county waste;
- restrictions on special waste importation;
- enforcement activities by uncertified health departments;
- transporter licensing; and
- the severability of unlawful plan provisions without a formal plan amendment.

MWIA contends that these provisions exceed the limited authority that has been delegated to the counties under Part 115. Further, because the Michigan Department of Environmental Quality ("MDEQ") can only approve or disapprove a county solid waste management plan without conditions, MWIA contends that MDEQ cannot approve a plan that contains one or more of these offending provisions.

**I. PERMISSIBLE CONTENTS OF COUNTY
SOLID WASTE MANAGEMENT PLANS**

Although Part 115 authorizes counties, among other government entities, to prepare solid waste management plans, counties do not have carte blanche to include any provision related to solid waste in their plans. To the contrary, counties must work within the narrow confines of the Legislature's delegation of authority under Part 115. Thus, when reviewing a plan submitted by a county for final approval, MDEQ must *not* ask, "does Part 115 *prohibit* this particular provision." Rather, MDEQ must ask whether a specific section of Part 115 or the Part 115 Rules *clearly authorizes* each provision included in a solid waste management plan including each

provision incorporated by reference into the plan. If the answer to that question is not an unqualified "yes," MDEQ must deny approval of the plan.

**A. COUNTIES ONLY POSSESS
DELEGATED POWERS AND CANNOT
REGULATE FOR THE HEALTH AND
SAFETY OF THEIR RESIDENTS**

MWIA's comments on the contents of solid waste management plans are rooted in the fact that Michigan counties have delegated powers only and do not have any inherent power to regulate for purposes of the public's health, safety and general welfare. A "county has only such powers as have been granted to it by the Constitution or the state Legislature." *Alan v. Wayne Co.*, 388 Mich. 210, 245 (1972); *Berrien Co. Probate Judges v. Michigan Am. Fed'n of State, Co. & Mun. Employees Council 25*, 217 Mich. App. 205 (1996). Where counties have been clearly delegated such powers, the Michigan Constitution provides that the powers "shall be liberally construed in [the counties'] favor" and that "[p]owers granted to counties . . . shall include those fairly implied and not prohibited by this constitution." Const. 1963, art. VII, § 34. This constitutionally imposed rule of interpretation, however, is not an independent grant of authority. "As these provisions are not self-executing, the rights which they bestow and the duties which they impose may not be enforced without the aid of legislative enactment." *County Comm'r of Oakland Co. v. Oakland Co. Executive*, 98 Mich. App. 639, 646 (1980). Thus, counties have no inherent authority to include provisions in solid waste management plans without clear authorization by Legislature under Part 115.

The Office of the Attorney General ("AG") has consistently opined that counties are without authority to regulate matters that have not been clearly delegated by the Legislature. For example, the AG most recently opined that a non-charter county does not have authority to regulate the emissions from a municipal waste incinerator. OAG, 1998, No. 6,992 (Aug. 13, 1998). In that opinion, the AG first noted that townships, cities and villages *have* been granted authority by the Michigan Legislature to adopt ordinances for the purpose of protecting the public's health, safety and general welfare. Therefore, the AG opined that a township, city or village *may* adopt an air pollution control ordinance, provided that it is reasonably related to this purpose. For counties, however, the AG noted that, while chartered counties are expressly authorized by statute to adopt ordinances to abate air pollution, *the Legislature "has not seen fit to grant this power to noncharter counties."* *Id.*, slip op. p. 3 (emphasis added). The AG concluded that a "noncharter county is thus not authorized to adopt an air pollution ordinance." *Id.*; *see also*, OAG, 1969-1970, No. 4,696, p. 197 (Nov. 25, 1970) (county could not adopt air pollution control ordinance because no Michigan statute authorized a non-chartered county to abate air pollution and county ordinance would interfere with local affairs of villages and townships). This opinion is particularly significant with respect to solid waste management plans prepared under Part 115 because a municipal waste incinerator is a disposal area that must be consistent with such a plan. *See M.C.L. § 324.11529(4).*

Other AG opinions express a similar narrow view of a county's authority to regulate in the absence of clear enabling legislation. In OAG, 1989-1990, No. 6,665, p. 401 (Nov. 15, 1990), the AG opined that counties lacked the general authority to regulate the location of cigarette vending machines because such a county ordinance would interfere with the authority of the villages and townships to regulate such matters. In OAG, 1979-1980, No. 5,617, p. 526 (Dec. 28, 1979), the AG opined that a county could not adopt the Michigan Vehicle Code as

an ordinance because "[t]he adoption of the motor vehicle code by a county would not be consistent with the legislative intention [to grant certain exclusive powers to the county road commission], would have the effect of contravening the general laws of the state, and of extending or increasing the powers or jurisdiction of a county board of commissioners." In OAG, 1977-1978, No. 5,341, p. 556 (July 31, 1978), the AG opined that a county had no authority to operate a spay and neuter clinic for dogs and cats because "[n]o provision of the [Michigan Dog Law] specifically or impliedly authorizes a county to establish and maintain a spay and neuter clinic and cats are not mentioned in either the title or body of the act." In OAG, 1977-1978, No. 5,304, p. 427 (April 27, 1978), the AG opined that a county board of commissioners could not establish a county police or security force because "the delegation of law enforcement responsibilities to any entity other than the sheriff would contravene general state laws [and] would tend to increase the powers, duties and jurisdiction of the county board of commissioners by transferring a measure of the sheriff's authority to an organization responsible to the board and not to the sheriff." Finally, in OAG, 1971-1972, No. 4,741, p. 82 (April 13, 1972), the AG opined that a county was without authority to adopt an ordinance banning the discharge of firearms in the county because there was "no express or implied power in the county which would support the adoption of [such] an ordinance."

**B. PART 115 ESTABLISHES THE
SPECIFIC CONTENTS OF A SOLID
WASTE MANAGEMENT PLAN AND
COUNTIES CANNOT INCLUDE
EXTRANEOUS PROVISIONS THAT
WOULD EXPAND THEIR LIMITED
DELEGATION OF AUTHORITY.**

The contents of a solid waste management plan are limited to the provisions that are authorized in Part 115 and the Part 115 Rules, which are summarized below. A solid waste management plan must "encompass all municipalities within the county" and "take into consideration solid waste management plans in contiguous counties and existing local approved solid waste management plans as they relate to the county's needs." M.C.L. § 324.11533(2). A solid waste management plan must contain an evaluation of the "best available information" regarding recyclable materials within the planning area, including an evaluation of how the planning entity is meeting the state's waste reduction and recycling goals, and, based on that analysis, either provide for recycling and composting of such materials or establish that recycling and composting are not necessary or feasible or is only necessary or feasible to a limited extent. M.C.L. § 324.11539(1)(a), (b) and (d). If the solid waste management plan proposes a recycling or composting program, the plan must contain details of the major features of that program, including ordinances or other measures that will ensure collection of the material; however, as discussed below, Part 115 does not operate as enabling legislation for such ordinances. M.C.L. § 324.11539(1)(c). A solid waste management plan must "identify specific sites for solid waste disposal areas for a 5-year period after approval of a plan or plan update," and either identify specific sites for disposal areas for the remaining portion of the ten-year planning period, or include a process to annually certify the remaining solid waste disposal capacity available to the plan area and an interim siting mechanism¹ that becomes operative when the annual certification

¹"An interim siting mechanism shall include both a process and a set of minimum siting criteria, both of which are not subject to interpretation or discretionary acts by the planning entity,

indicates that the available capacity is less than 66 months. M.C.L. § 324.11538(2). The solid waste management plan must "explicitly authorize" another county, state, or country to export solid waste into the county. M.C.L. § 324.11538(6).² In addition, "[w]ith regard to intercounty service within Michigan, the service must also be explicitly authorized in the exporting county's solid waste management plan." *Id.*

In addition to the plan content requirements expressly contained in Part 115, Section 11538(1) authorizes MDEQ to promulgate rules "for the development, form, and submission of initial solid waste management plans." M.C.L. § 324.11538(1). Part 115 directs MDEQ to provide for the following in its administrative rules regarding solid waste management plans:

- (a) The establishment of goals and objectives for prevention of adverse effects on the public health and on the environment resulting from improper solid waste collection, processing, or disposal including protection of surface and groundwater quality, air quality, and the land.
- (b) An evaluation of waste problems by type and volume, including residential and commercial solid waste, hazardous waste, industrial sludges, pretreatment residues, municipal sewage sludge, air pollution control residue, and other wastes from industrial or municipal sources.
- (c) An evaluation and selection of technically and economically feasible solid waste management options, which may include sanitary landfill, resource recovery systems, resource conservation, or a combination of options.
- (d) An inventory and description of all existing facilities where solid waste is being treated, processed, or disposed of, including a summary of the deficiencies, if any, of the facilities in meeting current solid waste management needs.
- (e) The encouragement and documentation as part of the plan, of all opportunities for participation and involvement of the public, all affected agencies and parties, and the private sector.

and which if met by an applicant submitting a disposal area proposal, will guarantee a finding of consistency with the plan." M.C.L. § 324.11538(3).

²See also, M.C.L. § 324.11513; Mich. Admin. Code r. 299.4711(e)(iii)(C). In *Fort Gratiot Sanitary Landfill, Inc. v Department of Natural Resources*, 504 U.S. 353 (1992), the United States Supreme Court invalidated Part 115's flow control provisions to the extent they regulated the interstate flow of solid waste because such regulation violated the Commerce Clause of the United States Constitution.

(f) That the plan contain enforceable mechanisms for implementing the plan, including identification of the municipalities within the county responsible for the enforcement. This subdivision does not preclude the private sector's participation in providing solid waste management services consistent with the county plan.

(g) Current and projected population densities of each county and identification of population centers and centers of solid waste generation, including industrial wastes.

(h) That the plan area has, and will have during the plan period, access to a sufficient amount of available and suitable land, accessible to transportation media, to accommodate the development and operation of solid waste disposal areas, or resource recovery facilities provided for in the plan.

(i) That the solid waste disposal areas or resource recovery facilities provided for in the plan are capable of being developed and operated in compliance with state law and rules of the department pertaining to protection of the public health and the environment, considering the available land in the plan area, and the technical feasibility of, and economic costs associated with, the facilities.

(j) A timetable or schedule for implementing the county solid waste management plan.

M.C.L. § 324.11538(1)(a)-(j). MDEQ has promulgated such rules in Part 7 of the Part 115 Rules. Mich. Admin. Code r. 299.4701 *et seq.*

Rule 711 of the Part 115 Rules sets forth the general structure and the required contents of a county solid waste management plan. "To comply with the requirements of [Part 115,] . . . county solid waste management plans shall be in compliance with the following general format": (i) executive summary;³ (ii) introduction;⁴ (iii) data base;⁵ (iv) solid waste management system

³The executive summary must include an overview of the plan, the conclusions reached in the plan and the selected solid waste disposal alternatives. Mich. Admin. Code r. 299.4711(a).

⁴The introduction must establish the plan's goals and objectives for protecting the public health and the environment by properly collecting, transporting, processing, or disposing of solid waste, and by reducing the volume of the solid waste stream through resource recovery, including source reduction and source separation. Mich. Admin. Code r. 299.4711(b).

⁵The data base must include: (i) an inventory and description of the existing facilities serving the county's solid waste disposal needs; (ii) an evaluation of existing problems related to solid waste collection, management, processing, treatment, transportation, and disposal, by type and volume of solid waste; (iii) the current and projected population densities, centers of population, and centers of waste generation for five- and twenty-year periods; and (iv) the current and projected land

alternatives; (v) plan selection; (vi) management component; and (vii) documentation of public participation in the preparation of the plan.⁶ Mich. Admin. Code r. 299.4711(a)-(d). Under this general format, the operative portions of a solid waste management plan are contained in the solid waste management system alternatives, plan selection, and management component elements of the plan. The required contents of these three elements are discussed below.

First, each solid waste management system alternative developed in the plan must address the existing problems identified in the plan's data base related to solid waste collection, management, processing, treatment, transportation, and disposal and must address the following components: (i) resource conservation and recovery, including source reduction, source separation, energy savings, and markets for reusable materials; (ii) solid waste volume reduction; (iii) solid waste collection and transportation; (iv) sanitary landfills; (v) ultimate uses for disposal areas following final closure; and (vi) institutional arrangements, such as agreements or other organizational arrangements or structures, that will provide for the necessary solid waste collection, transportation, processing and disposal systems. Mich. Admin. Code r. 299.4711(d)(i)(A)-(H). In addition, the plan must evaluate public health, economic,⁷ environmental, siting, and energy impacts associated with each alternative. Mich. Admin. Code r. 299.4711(d)(ii).

Second, the plan must select the preferred solid waste management system alternative developed and evaluated in the plan. The selection must be based on "[a]n evaluation and ranking of proposed alternative systems" using factors that include: (i) technical and economic feasibility; (ii) access to necessary land and transportation networks; (iii) effects on energy usage, including the impacts of energy shortages; (iv) environmental impacts; and (v) public acceptability. Mich. Admin. Code r. 299.4711(e)(i)(A)-(G). The basis for the selection must be set forth in the plan, including a summary of the evaluation and ranking system. Mich. Admin. Code r. 299.4711(e)(ii)(A). The plan must state the advantages and disadvantages of the selected alternative based on the following factors: (i) public health; (ii) economics; (iii) environmental effects; (iv) energy use; and (v) disposal area siting problems. Mich. Admin. Code r. 299.4711(e)(ii)(B)(1)-(5). The selected alternative must "be capable of being developed and operated in compliance with state laws and rules of the Department pertaining to the protection of the public health and environment," include a timetable for implementing the plan, and be "consistent with and utilize population, waste generation, and other [available] planning information." Mich. Admin. Code r. 299.4711(e)(ii)(C)-(E). With respect to disposal areas, the selected alternative must "identify specific sites for solid waste disposal areas" for a five-year

development patterns and environmental conditions as related to solid waste management systems for five and twenty-year periods. Mich. Admin. Code r. 299.4711(c)(i)-(iv).

⁶The public participation in the preparation of the solid waste management plan must be documented by including in an appendix to the plan a record of attendance at the public hearing and the planning agency's responses to citizens' concerns and questions. Mich. Admin. Code r. 299.4711(g).

⁷The evaluation of the economic impacts must include an estimate of the capital, operational, and maintenance costs for each alternative system. Mich. Admin. Code r. 299.4711(d)(ii).

period following MDEQ approval of the plan and, "[i]f specific sites cannot be identified for the remainder of the 20-year period, the selected alternative shall include specific criteria that guarantee the siting of necessary solid waste disposal areas for the 20-year period subsequent to plan approval." Mich. Admin. Code r. 299.4711(e)(iii)(A), (B). As of June 9, 1994, however, "a county that has a solid waste management plan that provides for siting of disposal areas to fulfill a 20-year capacity need through use of a siting mechanism, is only required to use its siting mechanisms to site capacity to meet a 10-year capacity need." M.C.L. § 324.11537a.

Third, the "management component" element of a solid waste management plan must "identif[y] management responsibilities and institutional arrangements necessary for the implementation of technical alternatives." Mich. Admin. Code r. 299.4711(f). The management component must contain the following: (i) "[a]n identification of the existing structure of persons, municipalities, counties, and state and federal agencies responsible for solid waste management, including planning, implementation, and enforcement"; (ii) an assessment of such persons' and governmental entities' technical, administrative, financial and legal capabilities to fulfill their responsibilities under the plan; (iii) "[a]n identification of gaps and problem areas in the existing management system which must be addressed to permit implementation of the plan"; and (iv) a "recommended management system for plan implementation."⁸ Mich. Admin. Code r. 299.4711(f)(i)-(iii).

Solid waste management plans that contain provisions that have not been clearly authorized under the specific sections of Part 115 and the Part 115 Rules discussed above are unlawful. A plan containing such unlawful provisions cannot be approved by MDEQ.

II. MWIA'S COMMENTS ON COUNTY PLAN PROVISIONS

With the foregoing limitations on the specific contents of a solid waste management plan in mind, MWIA contends that the following provisions that are either contained expressly in a solid waste management plan, or that are contained elsewhere (e.g. ordinances, regulations or resolutions) but are incorporated by reference into a solid waste management plan, clearly exceed a county's authority under Part 115:

⁸The recommended management system must: (i) identify specific persons and governmental entities that are responsible for implementing and enforcing the plan, including the legal, technical, and financial capability of such persons and entities to fulfill their responsibilities; (ii) contain a process for "ensuring the ongoing involvement of and consultation with the regional solid waste management planning agency," and for "ensuring coordination with other related plans and programs within the planning area, including, but not limited to, land use plans, water quality plans, and air quality plans"; (iii) identify "necessary training and educational programs, including public education"; (iv) contain a "strategy for plan implementation, including the acceptance of responsibilities from all entities assigned a role within the management system"; and (v) identify "funding sources for entities assigned responsibilities under the plan." Mich. Admin. Code r. 299.4711(f)(iii)(A)-(F).

DISPOSAL FEES

Nothing in the Part 115 or Part 115 Rule provisions discussed above authorizes a county to *require* the payment or collection of fees as part of a solid waste management plan. At most, Rule 711(f)(iii)(F) authorizes the “management component” of a plan to “*recommend*” a “financial program that identifies funding sources.” Mich. Admin. Code r. 299.4711(f)(iii)(F). The underlying authority for such a funding program, however, cannot arise from the plan itself and must be found in some other enabling legislation.

Although the Michigan Court of Appeals has recently held that that Section 11520(1) of Part 115 authorized Saginaw County to adopt an *ordinance* that imposes a surcharge on the disposal of solid waste within the county, the court did not hold that such an ordinance may be included in a solid waste management plan or that a solid waste management plan may operate as the underlying authority for such a fee. *County of Saginaw v. Peoples Garbage Disposal, Inc.*, 232 Mich. App. 202 (1998). Indeed, the ordinance at issue in *County of Saginaw* was merely mentioned in the plan as a possible source of revenue and was adopted *after* MDEQ had approved the Saginaw County Solid Waste Management Plan. This distinction is significant because a disposal area that operates “contrary” to an approved solid waste management plan may be subject to an enforcement action under Part 115, which may include a cease and desist order. M.C.L. § 324.11519(2). Clearly, nothing in Part 115 indicates that a disposal area could be ordered to cease operations merely because it failed to pay a fee imposed by a local ordinance.

Moreover, the holding in *County of Saginaw* is inapplicable to counties that do not have certified health departments under Part 115. Section 11520(1) of Part 115, which the court relied upon for its holding, provides:

Fees collected by a *health officer* under this part shall be deposited with the city or county treasurer, who shall keep the deposits in a special fund designated for use in implementing this part. If there is an ordinance or charter provision that prohibits a health officer from maintaining a special fund, the fees shall be deposited and used in accordance with the ordinance or charter provision. Fees collected by the department under this part shall be credited to the general fund of the state.

M.C.L. § 324.11520(1) (emphasis added). A *health officer* is expressly defined as in Part 115 as “a full-time administrative officer of a *certified* city, county or district department of health.” M.C.L. § 324.11504(1) (emphasis added). A certified department of health must be “specifically delegated authority by [MDEQ] to perform designated activities prescribed by [Part 115].” M.C.L. § 324.11502(5). Part 2 (Certification of Local Health Departments) of the Part 115 Rules sets forth the specific requirements that a county health department must meet in order to become certified. Mich. Admin. Code r. 299.4201 *et seq.* Part 115 contains absolutely no authority for the collection of fees by a county that does not have a certified health department.

Further, even if Part 115 did authorize the inclusion of a fee provision in the solid waste management plan of a county with a certified health department (which it does not), MDEQ is prohibited from approving such a plan if the fee is really a disguised tax that violates the Headlee Amendment to the Michigan Constitution, which prohibits local units of government from imposing new taxes without voter approval. Mich. Const. art. 9, § 31; *See Bolt v. City of*

Lansing, 459 Mich. 152 (1998) (storm water fee invalidated under Headlee Amendment as disguised tax). MDEQ's act of approving a solid waste management plan is not merely a rubber stamp of a county's independent act. Rather, MDEQ's approval is the final step in establishing a statewide "cohesive scheme of uniform controls" over the disposal of solid waste. *Southeastern Oakland Co. Incinerator Auth. v Avon Twp.*, 144 Mich. 39, 44 (1986). By approving a solid waste management plan, MDEQ incorporates that plan into the State solid waste management plan, M.C.L. § 324.11544(1), and, thereafter, a person may not "establish a disposal area" or "conduct, manage, maintain, or operate" a disposal area "contrary" to that approved plan. M.C.L. §§ 324.11509(1), 11512(2). Accordingly, MDEQ could not approve a solid waste management plan that imposes a fee on the disposal of solid waste *unless* MDEQ can demonstrate that the amount of any fee imposed will be reasonable related to the services provided to the persons paying the fee, and that the fee will not otherwise constitute a tax that requires voter approval.

MWIA also believes that, because the decision in *County of Saginaw* has been appealed to the Michigan Supreme Court, MDEQ should use its discretion and refrain from approving county solid waste management plans that contain fee provisions until this issue has been fully resolved. In this regard, MWIA notes that the appeals court's analysis of Section 11520(1) is clearly erroneous because it failed to consider the history and development of Part 115. Section 11520(1) was originally enacted as Section 18 of 1978 PA 641. M.C.L. § 299.418 (repealed, now Section 11520(1) of Part 115). In 1978, the only fees expressly contemplated in Act 641 were nominal disposal area operating license and construction permit application fees, which ranged between \$100 and \$700. Further, the language of Section 18 of Act 641 was nearly identical to Section 3(3) of the Garbage and Rubbish Disposal Act of 1965, which imposed similar nominal application fees and imposed very few obligations on counties with respect to the solid waste disposal. M.C.L. § 325.293(3) (repealed by Act 641). The Legislature's intent with respect to Section 11520(1) was to allow certified county health departments to retain and use these application fees solely for the purpose of processing the applications. The Legislature clearly did not intend for Section 11520(1) to operate as enabling legislation for counties to impose fees on the disposal of solid waste in order to fund an extensive county solid waste or recycling program.⁹ Accordingly, the appeals court's interpretation of Part 115 will likely be overturned.

OPERATING CRITERIA

A solid waste management plan may not contain disposal area operating criteria. Nothing in Part 115 or the Part 115 Rule provisions discussed above authorizes a solid waste management plan to regulate the day-to-day operations of a disposal area. To the contrary, Part 115 provides MDEQ with exclusive authority to regulate disposal area operation. Further, Michigan Appellate Court decisions have unanimously interpreted Part 115 as preempting all local regulation of disposal area operation. *County of Saginaw v Peoples Garbage Disposal, Inc.*, 232 Mich. App. 202 (1998); *Southeastern Oakland County Incineration Authority v Avon Township*, 144 Mich. App. 39 (1985); *Weber v Orion Twp. Bldg Inspector*, 149 Mich. App. 660

⁹ It is also noteworthy that, for the last three years, bills that would authorize county-imposed fees have been proposed in the Michigan Legislature

(1986) ("all local regulations concerning the operation of a landfill are preempted"); *Dafer Township v. Reid*, 159 Mich. App. 149 (1987). Thus, disposal area operating criteria are not appropriate for a solid waste management plan.

MANDATED RECYCLING

A solid waste management plan may not mandate a quota on the volume of solid waste that is recycled within the planning area. Nothing in Part 115 or the Part 115 Rule provisions discussed above authorizes a county or any another planning agency to mandate such a quota system. Rather, Part 115 only authorizes a county to "*propose* a recycling or composting program" in a county plan. M.C.L. § 324.11539(1)(b). Such a program may only set recycling *goals*, rather than require absolute volume reductions. M.C.L. § 324.11539(1)(d). Further, a program that prohibits a disposal area from accepting a particular type of solid waste, such as waste that could be recycled, would directly conflict with Section 11516(5) of Part 115, which states that "[i]ssuance of an operating license by [MDEQ] *authorizes the licensee to accept waste for disposal*." M.C.L. §§ 324.11533(1), .11516(5) (emphasis added). Thus, any recycling program may, at most, be referenced as a goal.

MANDATED DATA COLLECTION

A solid waste management plan may not require the owner or operator of a disposal area to collect and report data concerning the volume of solid waste that is recycled or disposed of. Nothing in Part 115 or the Part 115 Rule provisions discussed above authorizes a county to impose such an on-going duty on disposal area owners and operators. Rather, Part 115 only requires that, at the time a plan is prepared, a county evaluate "how the planning entity is meeting the state's waste reduction goals." M.C.L. § 324.11539(1)(d).¹⁰ Further, Part 115 expressly delegates the authority to impose such data-collection duties solely to MDEQ and not to the counties. M.C.L. § 324.11507a. Thus, data collection requirements imposed in a solid waste management plan exceed the authority delegated under Part 115.

PRESERVATION OF MORE THAN 10 YEARS OF CAPACITY

A solid waste management plan should provide for the free flow of solid waste to the extent the plan otherwise demonstrates 10 years of disposal capacity. A county has no duty or obligation under Part 115 to demonstrate more than 10 years of disposal capacity. M.C.L. § 324.11538(2). Therefore, a county has no legitimate interest in preserving additional disposal capacity by restricting or prohibiting the importation of out-of-county waste. While the preservation of disposal capacity beyond the legitimate needs of a county may ultimately benefit county residents, the cost of providing that benefit is imposed solely on the disposal area owners and operators doing business within the county. Such a restriction on the use of a disposal area's air space constitutes a taking without compensation that violates the federal and Michigan constitutions.

¹⁰ A bill that would authorize such mandated data collection regarding recycled material was proposed in the Michigan Legislature last year.

VOLUME RESTRICTIONS

A solid waste management plan cannot restrict the volume of solid waste that may be accepted for disposal at a disposal area during any given time period. Such a restriction is not authorized by that Part 115 Rule provisions discussed above and directly conflicts with Section 11516(5) of Part 115, which states that "[i]ssuance of an operating license by [MDEQ] *authorizes the licensee to accept waste for disposal,*" without limitation. M.C.L. §§ 324.11533(1), 11516(5) (emphasis added). Such a volume cap would also constitute local regulation of disposal area operating criteria, which, as discussed above, is preempted by Part 115. *Southeastern Oakland County Incineration Authority v. Avon Township*, 144 Mich. App. 39 (1985); *Weber v. Orion Twp. Bldg. Inspector*, 149 Mich. App. 660 (1986) ("all local regulations concerning the operation of a landfill are preempted"); *Dafter Township v. Reid*, 159 Mich. App. 149 (1987). Moreover, such a restriction is an unconstitutional taking of property because it temporarily prevents the use of air space at the disposal area without compensating the owner or operator.

IDENTIFICATION OF SPECIFIC DISPOSAL AREAS

While a solid waste management plan may identify specific disposal areas that are available and willing to accept a county's waste in order to demonstrate that a county has 10 years of disposal capacity and that the plan does not require an interim siting mechanism under Section 11538(2) of Part 115, nothing in Part 115 authorizes a county to restrict the disposal of its solid waste to those specifically identified facilities. Rather, Sections 11513 and 11538(6) of Part 115 require that a plan authorize the "acceptance" of out-of-county waste and the disposal "service" provided either by or for another Michigan county; however, these sections do not require that such acceptance or service be limited to specifically identified disposal areas. M.C.L. §§ 324.11513, 11538(6). At most, a solid waste management plan may limit the disposal of a county's solid waste to specific *counties* that are explicitly authorized in the plan to accept the waste and to serve the county's disposal needs. Furthermore, to the extent that Rule 711(e)(iii)(C) of the Part 115 Rules can be interpreted as requiring the identification of specific disposal areas in solid waste management plans, MWIA contends that such a requirement exceeds MDEQ's authority under Part 115 and is unenforceable.

RESTRICTIONS ON SPECIAL WASTE

A solid waste management plan may not restrict the importation of specific types of solid waste. With the possible exception of municipal solid waste incinerator ash, nothing in Part 115 authorizes a solid waste management plan to distinguish between different types of solid waste. See M.C.L. §§ 324.11513, 11538(6). Therefore, to the extent a solid waste management plan authorizes solid waste to be imported from or exported to other counties, such authorization must extend to all forms of solid waste, as that term is defined in Part 115.

ENFORCEMENT BY UNCERTIFIED HEALTH DEPARTMENT

Part 115 and the Part 115 Rules only grant enforcement powers to county health departments that have been certified by MDEQ. For example, Part 115 expressly provides that a health officer of a certified health department may inspect a licensed disposal area at any reasonable time and may issue a cease and desist order, establish a schedule of closure or remedial action, or enter into a consent agreement with an owner or operator of a disposal area that violates the provisions of Part 115 or the Part 115 Rules. M.C.L. § 324.11516(3); Mich. Admin. Code r. 299.4203. In addition, a health officer of a certified health department may inspect a solid waste transporting unit that is being used to transport solid waste along a public road or is being used for the overnight storage of solid waste and may order the unit out of service if it does not comply with the requirements of Part 115 or the Part 115 Rules. M.C.L. §§ 324.11525, 11528(3); Mich. Admin. Code r. 299.4205. None of these enforcement and inspection powers, however, has been delegated to a county that does *not* have a certified health department. Therefore, to the extent a county does not have a certified health department, any enforcement and inspection provisions contained in a solid waste management plan are unlawful.

It should also be noted that several counties without certified health departments are attempting incorporating ordinances into their solid waste management plans under the guise of "enforceable mechanisms," which regulate matters that have been delegated solely to a counties that have certified health departments. For example, at least one such ordinance includes a provision that would authorize a county without a certified health department to issue a "stop order" that prohibits the operation of a disposal area in violation of any provision of the ordinance. As discussed above, this authority has been delegated solely to counties with certified health departments. M.C.L. § 324.11516(3). Further, such a "stop order" would operate as a suspension of a license issued under Part 115 without any of the procedural protections provided under the Michigan Administrative Procedures Act. M.C.L. § 24.101 *et seq.*

It should also be noted that, although a solid waste management plan must include a "program and process" to assure that solid waste is properly collected and disposed of, Part 115's planning provisions are not enabling legislation for county ordinances. M.C.L. § 324.11533(1). The "program and process" included in a solid waste management plan is only "enforceable" to the extent the plan incorporates "enforceable mechanisms" that are specifically authorized under enabling statutes other than Part 115. M.C.L. § 324.11538(1)(f). Although the Legislature contemplated that "enforceable mechanisms" may include ordinances,¹¹ Part 115 expressly states that it does not "validate or invalidate an ordinance adopted by a county" for purposes of assuring solid waste collection and disposal. M.C.L. § 324.11531(2). Thus, it is clear that the Legislature intended that Part 115 would not operate as enabling legislation for the adoption of such enforceable mechanisms. Such authority, if any, must be specifically delegated to counties in some other enabling legislation. Accordingly, to the extent a solid waste management plan incorporates a county ordinance that provides enforcement powers to a county, MDEQ may not approve such a

¹¹Part 115 defines the term "enforceable mechanism" as "a legal method whereby the state, a county, a municipality, or a person is authorized to take legal action to guarantee compliance with an approved county solid waste management plan. Enforceable mechanisms include contracts, intergovernmental agreements, laws, ordinances, rules and regulations." M.C.L. § 324.11503(5).

plan until MDEQ has reviewed each provision of that ordinance and determined that it has been authorized by some enabling legislation and does not exceed a county's delegated authority under that legislation.

TRANSPORTER LICENSING

A solid waste management plan may not impose a licensing requirement on solid waste transporting units. Nothing in the Part 115 or Part 115 Rule provisions discussed above authorizes a county to implement such a licensing program. Rather, Part 115 imposes certain minimum requirements on solid waste transporting units. See M.C.L. § 324.11528(1); Mich. Admin. Code r. 299.4601(1). While MDEQ, a health officer of a certified health department, or a law enforcement officer may order a solid waste transporting unit out of service if it does not comply with these minimum requirements, Part 115 is expressly "intended to encourage the continuation of the private sector in the solid waste . . . transportation business *when in compliance with the minimum requirements of this part*." M.C.L. §§ 324.11528(3), 11548(2) (emphasis added). Moreover, as discussed in the previous section, Part 115's planning provisions do not operate as enabling legislation for counties to adopt ordinances regulating the transportation of solid waste. It should be noted that the Legislature repealed Part 115's licensing requirement for solid waste transporting units in 1979. See 1979 Public Act 10. Therefore, licensing requirements applicable to solid waste transporting units exceed a county's authority and a solid waste management plan containing such requirements (or incorporating an ordinance containing such requirements) may not be approved by MDEQ.

SEVERABILITY CLAUSE

The provisions of a solid waste management plan are not severable. Part 115 does not authorize such piecemeal revisions to a solid waste management plan without following the specific plan amendment procedures set forth in Part 115 and the Part 115 Rules. *Michigan Waste Systems, Inc. v. Department of Natural Resources*, 157 Mich. App. 746 (1987). Rather, an amendment to a solid waste management plan to remove an unlawful provision must proceed through a specific five-step approval process. M.C.L. § 324.11535; Mich. Admin. Code r. 299.4708, 4709. To the extent any portion of a plan is declared unlawful or invalid and the county does not properly amend its plan to remove the offending provision, MDEQ must withdraw its approval of the entire plan and establish a schedule for the county to amend the plan in order to comply with Part 115. M.C.L. § 324.11537(2). Therefore, counties and MDEQ should make every effort at this time to ensure that each plan fully complies with Part 115.



Calhoun County PROSECUTING ATTORNEY

Calhoun County Building
315 W. Green St.
Marshall, MI 49068-1518
(616) 781-0917

RECEIVED

NOV 18 1999


CALHOUN COUNTY
COMMUNITY DEVELOPMENT

SUSAN K. MLADENOFF
PROSECUTING ATTORNEY

EUSEBIO SOLIS
CHIEF ASSISTANT
PROSECUTING ATTORNEY

November 16, 1999

TO: Whitney Goodnoe, Solid Waste Management Specialist

FROM: Nancy Mullett, Civil Counsel 

RE: **SOLID WASTE MANAGEMENT PLAN; Civil opinion, 99-53-nm**

You have asked for input regarding the inclusion of two specific provisions of your updated Solid Waste Management Plan. Specifically, you have asked whether the Solid Waste Management Plan can 1) list certain hours that facilities may operate; and 2) provide for restrictions on volume and height for landfills.

MCL 324.11538 expressly prohibits counties from promulgating any ordinance, law, rule, regulation, policy or practice which prohibits or regulates the location or development of a solid waste disposal area. Hours of operation is a subject matter which should be adapted to local conditions and which does not interfere with either the development or the location of the landfill site. Further, a review of the case law indicates that hours of operation is not the type of activity that is likely to interfere with the statutory scheme regulating landfill location, development or operation. *Southeastern Oakland County Incinerator Authority (SOCIA) v Avon Township*, 144 Mich App 39 (1983). Thus, it is my opinion that including hours of operation in the Solid Waste Management Plan is proper.

Your second question, however, is more difficult because technically an argument can be made for both positions. Ultimately, it will turn on the intent of the Legislature in enacting Part 115 that will determine the result.

The goal of statutory interpretation is to give effect to the intent of the Legislature. Words are to be given their common interpretation unless otherwise noted and the meaning given one section must be given to another so as to produce a consistent result.

Part 115 provides for limitations on the volume of waste that a landfill may accept. Thus, it can

be assumed that had the Legislature intended a section to be "without limitation" it would have expressly said so. To conclude otherwise would lead to an inconsistent result when reading Part 115 as a whole.

Further, the statute requires that counties plan for the future in developing their plans. It is only logical for future planning to include these types of restriction. It is my opinion that volume and height restrictions are properly included in your Solid Waste Management Plan.

I hope this answers your questions. If I can be of further assistance, please let me know.

cc: Comm Perrett
Comm Ivey
Comm Nofs
Peter Herlofsky
Susan Mladenoff

Excerpt from the November 29, 1999 Minutes of the Calhoun County Solid Waste Management Planning Committee:

A motion was made by Marilyn Hennon, supported by Arnold Arquette to approve Calhoun County's Solid Waste Management Plan update as revised and further recommend that the Plan be forwarded to the Calhoun County Board of Commissioners for approval. Roll call vote; motion carried.

Arnold Arquette - yes
Steve Essling - yes
Sue Ann Jessup - yes
Mike Nofs - abstain

Bart Cook - yes
Tom Funke - yes
Lisa Johnson - yes
Marilyn Hennon - yes

Lewis Cooper - yes
Judy Huggett - no
David Kipp - yes

At a Regular Session of the Calhoun County Board of Commissioners, held in the Commissioners' Meeting Room, County Building, Marshall, Michigan, on Thursday, December 16, 1999, with Chairman Ivey presiding, the following action was taken:

Res. 312-1999

"Motion by Comr Perrett, supported by Comr Frederick, resolved by the Calhoun County Board of Commissioners adopt the following:

WHEREAS, the Calhoun County Solid Waste Management Planning Advisory Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five {5} years by statute; and

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, approval by the County Board of Commissioners is required before releasing the proposed Solid Waste Management Plan to the local units of government for approval

NOW, THEREFORE, BE IT RESOLVED that the Calhoun County Board of commissioners hereby approve the proposed Calhoun County Solid Waste Management Plan ”

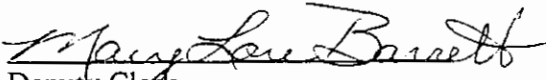
Roll call vote: Yes - 6 (Comrs Rhode, Austin, Frederick, Ivey, Mange and Perrett)
Abstain - 1 (Comr Nofs) Motion CARRIED

STATE OF MICHIGAN)
) SS
COUNTY OF CALHOUN)

I, Anne B Norlander, Calhoun County Clerk-Register, do hereby certify that the foregoing is a true and complete copy of Board Resolution No 312-1999, adopted by the Calhoun County Board of Commissioners on December 16, 1999, the original of which is on file in my office

IN WITNESS WHEREOF, I have hereunder affixed my signature and seal of the County of Calhoun this 22nd day of December, A D., 1999

Anne B. Norlander
Calhoun County Clerk-Register


Deputy Clerk

Dated: December 22, 1999

RECEIVED

JAN 25 2000

RESOLUTION # 2000-02

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of Dec. 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the City Council
(Council, Board or Commission)
of the City of Albion hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of the City of Albion is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: 7 - Ron Gant, Robert Thomas, Ken Waito, Arthur Davis
Jeffrey Carrier, Sue Klepper, William Wheaton

NAYS: 0

RESOLUTION DECLARED ADOPTED.

E. J. King
(Clerk)

1-18-2000
(Date)

RECEIVED

JAN 21 2000

RESOLUTION # _____

CLERK OF CALHOUN COUNTY
COMMUNITY DEVELOPMENT

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of Dec 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Council
(Council, Board or Commission)
of Village of Athens hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Athens Village is
hereby directed to notify the Calhoun County Community Development Department of
this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: 6 - Michael, Hansen, Miller
Fike, Lindsey, Pontoni

NAYS: 0

RESOLUTION DECLARED ADOPTED.

Bonnie J. Grant
(Clerk)

1-18-2000
(Date)



RESOLUTION

NO. 69

A Resolution approving the proposed 1999
Calhoun County Solid Waste Management Plan.

APPROVED

BATTLE CREEK MICH. 1/18/00

Resolved by the Commission of the City of Battle Creek:

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed 1999 Calhoun County Solid Waste Management Plan, as is required every five years by statute; and

WHEREAS, the proposed 1999 Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed 1999 Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the proposed 1999 Solid Waste Management Plan was the subject of a presentation at the October 19, 1999, Battle Creek City Commission meeting; and

WHEREAS, the Calhoun County Board of Commissioners approved the proposed 1999 Solid Waste Management Plan at its meeting of December 16, 1999; and

WHEREAS, approval of the proposed 1999 Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE, BE IT RESOLVED THAT the City Commission of the City of Battle Creek hereby approves the proposed 1999 Calhoun County Solid Waste Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of the City of Battle Creek is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

ORIGINAL

Peter m. Bulbin
Paul A. Blanche

AYES: Mayor Dearing, Vice Mayor Bilbia, Comms. Behnke, Drozdowski,
Geminder, Godfrey, Kirkham, Squires and Walker

NAYS: None

RESOLUTION DECLARED ADOPTED.

Deborah G. Owens
Deborah G. Owens, City Clerk

January 18, 2000
Date

RECEIVED

FEB 16 2000

RESOLUTION # 2/10/00/05

CALHOUN COUNTY
COMMUNITY DEVELOPMENT

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of DEC. 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the BOARD OF TRUSTEES
(Council, Board or Commission)
of CHARTER TOWNSHIP OF BEDFORD hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of BEDFORD is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: HARVEY, YES; ARMSTRONG, YES; SPRAU, YES; BARTOK, YES; DUCK,
YES
EXCUSED: BARTLOW, EXCUSED; GEHRMAN, EXCUSED
NAYS: NONE

RESOLUTION DECLARED ADOPTED.

Thomas J. Sprau, Sr.
(Clerk) THOMAS J. SPRAU, SR.
CHARTER TOWNSHIP OF BEDFORD

FEBRUARY 15, 2000
(Date)

RESOLUTION # 1

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of January 10.00 and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Board
(Council, Board or Commission)
of Clarence Township hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Clarence Township is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: 5 _____

NAYS: 0 _____

RESOLUTION DECLARED ADOPTED.

Robert J. Lusk
(Clerk)

January 10, 2000
(Date)

RECEIVED

JAN 14 2000

CALHOUN COUNTY
COMMUNITY DEVELOPMENT

RESOLUTION # 00-2

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of Dec 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Board
(Council, Board or Commission)
of Convis Township hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Convis Township is hereby directed to notify the Calhoun County Community Development Department of this approval in writing. FRANCE & Dunn

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: 5

NAYS: _____

RESOLUTION DECLARED ADOPTED.

Karen L. Loyer
(Clerk)

1-11-2000
(Date)

ECKFORD TOWNSHIP
21000 F DRIVE SOUTH
MARSHALL, MICHIGAN 49068

January 17, 2000

Resolution No. 2000-1

Whereas the Calhoun County Solid Waste Management Planning Committee has prepared a Calhoun County Solid Waste Management plan as required every 5 years by Michigan Laws;

And whereas the proposed Solid Waste Management plans has been prepared and meets the requirements of the Michigan's Natural Resources and Environmental Protection Act, as amended;

And whereas the proposed Solid Waste Management plan had been released for a 90 day public review period and public hearings have been held;

Therefore be it resolved that the Eckford Township Board approves the proposed 1999 Calhoun County Solid Waste Management Plan.

Vote: Ayes: 5
Nays: 0

Resolution adopted 1-17-2000

Susan Dannerburg
~~Lynnda Kiesling, Clerk~~ *Dept Clerk,*
Eckford Township

Copy to: Calhoun County Community Development ✓
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, Michigan 49068

RESOLUTION # 1-00

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of December 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Board of Trustees
(Council, Board or Commission)
of Fredonia Township hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Fredonia Township is
hereby directed to notify the Calhoun County Community Development Department of
this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: Floyd Beneker, Ruth Albough, David L. Lebsung, Sr.,
Angela Taylor + Phil Davis

NAYS: None

RESOLUTION DECLARED ADOPTED.

Ruth L. Albough
(Clerk)

1/24/00
(Date)

RECEIVED

JAN 13 2000

CALHOUN COUNTY
COMMUNITY DEVELOPMENT

RESOLUTION # _____

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of _____; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Township
(Council, Board or Commission)
of Homer hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Homer Township is
hereby directed to notify the Calhoun County Community Development Department of
this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

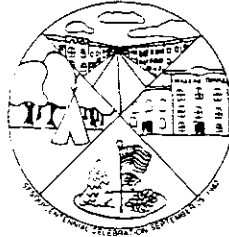
AYES: Jennifer Johnson, Art Thomas, Marie Dawson,
Graia Shaffer

NAYS: _____

RESOLUTION DECLARED ADOPTED.

Jennifer Johnson
(Clerk)

01-11-2000
(Date)



RECEIVED

FEB 2 2000

CALHOUN COUNTY
COMMUNITY DEVELOPMENT

Village of Homer

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of December 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED, that the Homer Village Council hereby approves the proposed Calhoun County Solid Waste Management Plan.

BE IT FURTHER RESOLVED, that the Clerk of the Village of Homer is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department 13300 Fifteen Mile Road
Marshall, MI 49068

AYES: Anderson, Blakemore, Hopps, Miller, Sherman, Stonebraker & Swope

NAYS: None

RESOLUTION DECLARED ADOPTED.

Lea Anne Nowlin - Clerk Treasurer

1/13/00

Date

RECEIVED

RESOLUTION # 1-2000

FEB 22 2000

CALHOUN COUNTY
COMMUNITY DEVELOPMENT

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of Dec 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Township Board
(Council, Board or Commission)
of Lee hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Lee Twp is
hereby directed to notify the Calhoun County Community Development Department of
this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: Dadow, Farmer, Keyes, Weaver
and Letts.

NAYS: None.

RESOLUTION DECLARED ADOPTED.

Jane Dadow
(Clerk)

Feb 9, 2000
(Date)

**LEROY TOWNSHIP
BOARD RESOLUTION
2000-01-01
CALHOUN COUNTY SOLID WASTE MANAGEMENT PLAN**

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting held on December 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Board of Trustees of Leroy Township hereby approves the proposed Calhoun County Solid Waste Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Leroy Township is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

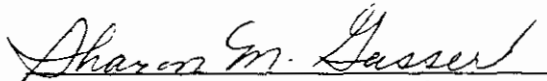
Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: Lazarov, Chapman, Gasser, Tramel

NAYS: None

Hile: absent

RESOLUTION DECLARED ADOPTED


Sharon M. Gasser-Township Clerk

January 25, 2000
Date



MARENGO TOWNSHIP

Calhoun County

RECEIVED
MAR 7 2000

RESOLUTION # 2000-5

CALHOUN COUNTY
COMMUNITY DEVELOPMENT

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of December 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Township Board of Marengo hereby approves the proposed Calhoun County Solid Waste Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Marengo Township is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

AYES: Jerry Elyea, Elizabeth Flynn, Marilyn Jones, Robert Brownell, Helen Lindsey.

NAYES: NONE

RESOLUTION DECLARED ADOPTED:

CLERK

DATE

Helen Lindsey, Supervisor
22657 East Michigan Ave.
Marshall, MI 49068
616-781-9010

Marilyn Jones, Clerk
19161 I Drive North
Marshall, MI 49068
616-781-8562

Elizabeth Flynn, Treasurer
17035 19 Mile Road
Marshall, MI 49068
616-781-5098

Robert H. Brownell, Trustee
22400 H Drive North
Marshall, MI 49068
616-781-6131

Jerry Elyea, Trustee
19256 Partello Road
Marshall, MI 49068
616-781-4413

Post-It Fax Note	7871	Date	1-21	# of pages	1
To	Cindy Situk	From	Whitney		
Co Dept	Marshall Twp.	Co	CCCD		
Phone #		Fax #	7819841		
Fax #	7814403	Fax #	7816101		

RESOLUTION #
00-06

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of Dec 14, 1999 and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Board
(Council, Board or Commission)
of Marshall Township hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Marshall Township is
hereby directed to notify the Calhoun County Community Development Department of
this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: Harrison, Quinn, Albright, Smith
NAYS: Boissard absent
Zeno

RESOLUTION DECLARED ADOPTED.

Curt A. Smith
(Clerk)

2-25-00
(Date)

RECEIVED

DEC 16 1999

CALHOUN COUNTY
COMMUNITY DEVELOPMENT

RESOLUTION # 12/14/99

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of Newton Twp.; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Board
(Council, Board or Commission)
of Newton Township hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Newton Township is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: Laupp Mason Jessup Rice Clutter

NAYS: _____

RESOLUTION DECLARED ADOPTED.

Susan K. Mason
(Clerk)

12/14/99
(Date)

Pennfield Charter Township



20260 Capital Avenue N E., Battle Creek, MI 49017 • (616)968-8549 • FAX (616) 968-2021

**PENNFIELD CHARTER TOWNSHIP RESOLUTION 00-21
(A Resolution Supporting the Calhoun County Solid Waste Management Plan)**

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, a is required every five years by statute; and

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a pubic hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of December 16, 1999, and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the Local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval; so now,

THEREFORE BE IT RESOLVED THAT Pennfield Charter Township Board of Trustees hereby approves the proposed Calhoun County Solid Waste Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Pennfield Charter Township is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

Motion Cooper

Second Vire

Supervisor Mackinder yes

Trustee Cooper yes

Clerk Bammer yes

Trustee Ensign yes

Treasurer Phillips yes

Trustee Newman yes

Trustee Vire yes



January 17, 2000

R E S O L U T I O N

No. 02-00

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451) as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of December 16, 1999; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Council of the City of Springfield hereby approves the proposed Calhoun County Solid Waste Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of the City of Springfield is hereby directed to notify the Calhoun County Community Development Department of this approval in writing at:

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

MOVED Council Member Hinton

I, Kristin R. Baird Clerk of the City of Springfield, hereby certify the above and foregoing is true and correct copy of a resolution adopted by the City Council at a regular meeting held on the 17 day of Jan. 2000

Kristin R. Baird
Kristin R. Baird

SECONDED Council Member

All ayes. Resolution adopted.

RECEIVED

JAN 12 2000

RESOLUTION # 00-01

CALHOUN COUNTY
COMMUNITY DEVELOPMENT

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of December 16th and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Village Council
(Council, Board or Commission)
of Tekonsha hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of village of Tekonsha is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: Long, OLds, Lloyd, Goheen, Johnson, Stefan
1 vacant seat

NAYS: None

RESOLUTION DECLARED ADOPTED.

Howard D. Rigg
(Clerk) Howard D. Rigg

01/10/00
(Date)

RECEIVED

RESOLUTION # 2000--03-02

JAN 13 2000

CALHOUN COUNTY
COMMUNITY DEVELOPMENT

WHEREAS, the Calhoun County Solid Waste Management Planning Committee has prepared the proposed Calhoun County Solid Waste Management Plan, as is required every five years by statute;

WHEREAS, the proposed Solid Waste Management Plan has been prepared following the requirements of Michigan's Natural Resources and Environmental Protection Act (Act 451), as amended; and

WHEREAS, the proposed Solid Waste Management Plan has been released for a 90-day public review period, and a public hearing has been held; and

WHEREAS, the Calhoun County Board of Commissioners has approved the proposed Solid Waste Management Plan at the meeting of _____; and

WHEREAS, approval of the proposed Solid Waste Management Plan by no less than 67% of the local units of government is required before it is forwarded to the Michigan Department of Environmental Quality for final approval;

NOW, THEREFORE BE IT RESOLVED THAT the Township Board
(Council, Board or Commission)
of Tekonsha hereby approves the proposed Calhoun County Solid Waste
(Local Unit of Government name)
Management Plan.

BE IT FURTHER RESOLVED THAT the Clerk of Tekonsha Township is hereby directed to notify the Calhoun County Community Development Department of this approval in writing.

Calhoun County Community Development
Attn: Solid Waste Department
13300 Fifteen Mile Road
Marshall, MI 49068

AYES: Nelson Shedd-Marcia Thomas, Pamela Herman, Roberta Stemaly and Eric Phelps

NAYS: _____

RESOLUTION DECLARED ADOPTED.

Marcia Thomas
(Clerk)

01-03-2000
(Date)

APPENDIX C

Solid Waste Management Planning Committee Members

Solid Waste Industry Reps.

Terri Zick, Chairperson
BFI
5400 Cogswell Road
Wayne, MI 48184
Pager: 810-704-4305
734-729-3540 ext. 146

David (Mike) Kipp
1185 N. Raymond Road
Battle Creek, MI 49017
616-968-4479

Steve Essling
Waste Management, Inc.
CES Landfill of Hastings
P.O. Box 336, 1869 N. Broadway
Hastings, MI 49058
(616) 945-2260

John Laforge
Marshall Disposal
12350 15 1/2 Mile Road
Marshall, MI 49068
(616) 781-8236

General Public Reps.

Lisa Johnson
84 East Kingman Ave.
Battle Creek, MI 49014
616-965-9605 (w)
616-965-9589 (h)

Arnold Arquette
14300 N Drive North
Marshall, MI 49068
616-781-2013

Lewis Cooper
Defense Logistics Services Center
74 N. Washington Ave
Battle Creek, MI 49017-3084
616-961-4917 (w)

City Rep.

Bart Cook
City of Marshall
325 W. Michigan Ave
Marshall, MI 49068
616-781-9812 (w)

County Rep.

Mike Nofs
Calhoun County Commissioner
14577 N. Drive North
Marshall, MI 49068
616-968-6115 (w)
616-781-3303 (h)

Environmental Interest Rep.

Tom Funke
Binder Park Zoo
59 E. Territorial Road
Battle Creek, MI 49015
616-979-1351 ext. 129

Tamara Crupi , (later replaced by Marilyn Hennon)
White House Nature Center,
Albion College
1381 E. Erie Street
Albion, MI 49224
(517) 629-0582 (w)
(517) 629-4864 (h)

Township Rep.

Judy Huggett
20111 15 Mile Road
Marshall, MI 49068
616-781-3667

Regional Planning Rep.

Sue Ann Jessup
Newton Township, Supervisor
7173 J Drive South
Burlington, MI 49029
616-979-3237

Industry Waste Generator

Laura Culbert (RESIGNED)
Kellogg Company
P.O. Box 3599, 235 Porter Street
Battle Creek, MI 49016
616-961-2059 (w)

Health Department (non-voting)

Ted Havens
Calhoun County Environmental Health
190 E. Michigan Avenue
Battle Creek, MI 49017
616-966-1241

APPENDIX C

BYLAWS OF THE SOLID WASTE MANAGEMENT PLANNING COMMITTEE COUNTY OF CALHOUN

ARTICLE I: ESTABLISHMENT

Section 1. The Calhoun County Solid Waste Management Planning Committee exists as required by statutory authority under Section 11534 of Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act of 1994 P.A. 451, as amended.

ARTICLE II: SCOPE AND PURPOSE

Section 1. The Committee shall assist in the preparation of the Solid Waste Management Plan by providing advice and consultation. The duties of the Committee include, but are not limited to:

1. Identification of the local policies and priorities.
2. Insuring coordination and public participation
3. Periodically advise the County and Municipalities of the plan's status.
4. Approve the plan.
5. Recommendation of the annual budget for the Solid Waste Management Fund.

Section 2. It is the responsibility of the Committee to assure that the Department is fulfilling all the requirements of the act and rules as to both the content of the plan and the public participation.

ARTICLE III: MEMBERSHIP

Section 1. Membership on the Committee shall be in accordance with Section 11534 of Part 115 of Act 451 of the Michigan Public Acts of 1994.

Section 2. Membership on the Solid Waste Management Planning Committee shall include:

1. Four (4) Representatives from the Solid Waste Management Industry.
2. Two (2) Representatives from Environmental Interest Groups.
3. One (1) Representative from City Government.
4. One (1) Representative from County Government.
5. One (1) Representative from Township Government.
6. One (1) Representative from the Regional Solid Waste Planning Agency.
7. Three (3) Representatives from the General Public.
8. One (1) Representative from the Industrial Waste Generator Sector.

Section 3. The Board of Commissioners of the County of Calhoun shall appoint the membership to the Committee for terms of two (2) years.

Section 4. The members entitled to vote on the Committee business are the members appointed by the County Board of Commissioners.

APPENDIX C

ARTICLE IV: OFFICERS

Section 1. Each year the Committee shall select from its membership a Chairperson and Vice-Chairperson. All officers are eligible for re-reelection.

Section 2. The Chairperson shall: preside at all meetings; appoint subcommittees; and decide all questions of procedure under the Committee's rules of procedure subject to appeal by a majority vote of the full membership.

Section 3. The Vice-Chairperson shall: preside at a meeting in the absence of the Chairperson; assume the duties and responsibilities of the Chairperson when the Chairperson is unable to do so because of illness, travel, or any other situation which in the majority opinion of the Committee prevents the Chairperson from performing such function of his/her office.

Section 4. The County Board shall provide a secretary to the Solid Waste Management Planning Committee, who shall be responsible for recording, or causing to be recorded, the minutes of all regular and special meetings of the Solid Waste Management Planning Committee. The secretary shall be responsible for the official records and documents of the Committee and shall provide copies to the County Board. The secretary shall also be responsible for maintaining all minutes of the subcommittees and other official records and documents submitted by the subcommittees. In the event a County Board appointed secretary is unavailable, the Chairperson shall appoint a member, or other person, to temporarily act as the secretary.

ARTICLE V: MEETINGS

Section 1. A quorum for the conduct of Committee business shall be a majority of the members designated and serving on the Committee.

Section 2. Committee members are responsible for attending all Solid Waste Management Planning Committee meetings. In the event a member is unable to attend a scheduled meeting, the member shall contact the Chairperson, or Vice-Chairperson, and state the reason for inability to attend. In the event a member is unexcused from attending for three consecutive meetings, the Chairperson shall send written notification to the member that failure to attend the next meeting or subcommittee meeting may result in termination of Solid Waste Management Planning Committee membership.

Section 3. The agenda for each Committee meeting shall include a period when any member of the public may address the Committee, subject to relevancy and reasonable time limits.

Section 4. Business of the Committee shall be in compliance with the Open Meetings Act (Act No. 267 of the Public Acts of 1976).

Section 5. Any writing prepared, owned, used, in the possession of, or retained by the Committee shall be made available to the public in accord with the Freedom of Information Act (Act No. 422 of the Public Acts of 1976).

APPENDIX C

ARTICLE VI: PUBLIC HEARINGS AND ADOPTION OF A PLAN

Section 1. A Public Hearing shall be held when required by: Part 115 of Public Act 451 of 1994, the duly adopted bylaws of the Solid Waste Management Planning Committee, or when a majority of the membership of the Committee deem a public hearing necessary. Such hearing shall be advertised by a notice which shall be printed in a newspaper of general circulation in the County not less than thirty (30) days before such hearing. Additional notices may be printed when deemed necessary by the majority of the membership of the Committee. The notice shall indicate a location where copies of the plan are available for public inspection and the time and place of the public hearing.

ARTICLE VII: RULES OF ORDER

Section 1. It shall be the general responsibility of the Chairperson to preserve order and decide upon questions of order or procedure in a manner consistent with Robert's Rules of Order. The Chairperson may appoint a parliamentarian who shall decide all questions on procedure arising under these by-laws and general parliamentary practice. The Rules of Parliamentary Practice according to "Robert's Rule of Order for Deliberative Assemblies" shall govern in other matters not addressed by these rules and not contrary to any existing laws of the State of Michigan.

Section 2. Each member shall be recognized by the Chairperson before speaking.

Section 3. The Chairperson or Secretary shall repeat any motion at the request of a member before the vote is taken.

Section 4. Voting shall be by voice with the Secretary recording the passage or failure of a motion unless a Roll Call Vote is required by Michigan Statute, these by-laws or Robert's Rules of Order, or when requested by any member of the Committee.

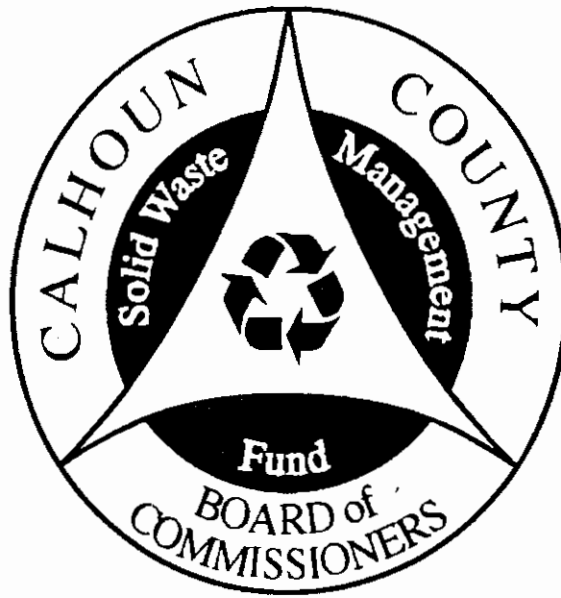
Section 5. No member shall vote on a question in which he/she has a direct personal or pecuniary interest. When such a case arises, a member shall be excused from voting by the Chairperson.

Section 6. A majority for adopting any action by the Committee shall be a majority of the members present when an action is proposed and a quorum is present, unless otherwise required by law.

Section 7. A motion, after it has been supported and duly recorded, may be debated until such time as a member calls for one of the following undebatable actions:

- (a) Adjournment (unqualified).
- (b) Previous questions.
- (c) To recess, when other business is pending.
- (d) Close, extend or limit the time of debate.
- (e) To refer to a Committee.
- (f) To amend an undebatable motion.
- (g) To divide the motion in component parts.

Section 8. All motions to reconsider any action shall be made at the same meeting or at the following meeting and such motions must be made by a member who was either absent or voted with the prevailing side. A motion to reconsider having been lost shall not be renewed at the same meeting. A motion to reconsider shall be declared carried only when it receives a majority vote of the full majority.



APPENDIX D
ATTACHMENTS



JOHN ENGLER, Governor
DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"
HOLLISTER BUILDING PO BOX 30473 LANSING MI 48909-7973

INTERNET: www.deq.state.mi.us
RUSSELL J. HARDING, Director

REPLY TO:

WASTE MANAGEMENT DIVISION
PO BOX 30241
LANSING MI 48909-7741

November 16, 1999

RECEIVED
NOV 19 1999
CALHOUN COUNTY DEVELOPMENT

Ms. Whitney L. Goodnoe
Solid Waste Specialist
Calhoun County Community Development
13300 Fifteen Mile Road
Marshall, MI 49068

Dear Ms. Goodnoe:

I have received and reviewed a copy of the draft Calhoun County (County) Solid Waste Management Plan Update (Plan) released for the 90-day public comment period August 2, 1999. I will address our comments in the same order as the topics appear in the Plan. The following areas of the County's Plan may be cause for concern and may require revision or additional information

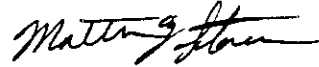
- Cover Page Please indicate the date when the final Plan is submitted to the Department of Environmental Quality (DEQ) for approval. If different versions of the Plan are prepared during the update process, listing the date can ensure that discussions between the DEQ and the County are referring to the correct document.
- Page II-3 The last paragraph on this page indicates that letters from or agreements with the disposal areas are included in Appendix D. I could not find several of these agreements from the Type II facilities and Transfer Stations, nor could I find any for the Type III facilities and the Waste-to-Energy incinerator. This documentation needs to be included in the Plan. In addition, some of the letters/agreements that are in the Plan have pages missing. This documentation needs to be reviewed and clarified for its inclusion in the Plan.
- Page II-6 The Current Capacity listed for Autumn Hills Recycling & Disposal Facility is 20.75 tons. The Autumn Hill Facility probably has capacity greater than 20.75 tons. Also, our format called for these figures in cubic yards. Please use cubic yard values if possible.
- Page II-7 The Total Area Permitted for C&C Landfill is shown as 129 acres. However, the sum total of the Operating Area, and Area Not Excavated is 54 acres. These numbers should more closely correlate. This comment applies to Pages II-14, II-15, II-20, II-23, and II-25 as well.

- Page II-11 I could not find a copy of the map identifying the location of this facility anywhere in the Plan. This comment applies to Pages II-13, II-18, II-26, II-27, II-28, and II-29 as well.
- Page II-14 The Total Area Sited For Use should not be smaller than the Total Area Permitted.
- Page II-16 According to this facility description, Pitsch Sanitary Landfill is open, but is neither licensed, nor has a construction permit. Please indicate if this facility is licensed and/or has a construction permit.
- Page II-17 I believe that the map identifying the location of the Southeast Berrien Landfill is in Appendix D, not Appendix A as indicated. This comment applies to Pages II-19 and II-24 as well.
- Page II-21 The Waste-to-Energy Incinerator is owned by Jackson County but is marked as Private. Please correct.
- Page II-22 I believe that the James River SWD has been closed. Please clarify the status of this facility. If the facility is open, please provide capacity numbers if available.
- Page II-25 No type of waste received was checked. Please designate the type of waste Sparta Foundry Waste Disposal Facility receives.
- Page II-43 The maps on this page and on Page II-44 are not readable. Better copies with the specific area that may not be suitable for solid waste development should be included in the final Plan.
- Page III-2 Because the County disposes approximately 44 percent of its waste at the C&C Landfill, the agreement between Calhoun County and C&C Landfill should be included in the Plan.
- Page III-7 Changes to the facility descriptions in Section II should be reflected in Pages III-7 through III-16.
- Page III-7 indicates that White Lake Landfill is one of several landfills on which Calhoun County will rely for its five and ten year capacity. White Lake Landfill is not currently operating. Calhoun County should assess if this adversely impacts its required capacity and make any appropriate revisions to the Plan.
- Page III-34 This decision of the County to activate the Siting Criteria should be based only on the County's ability to demonstrate that there is at least 66 months of capacity available. If the County cannot demonstrate that the required capacity is available, then they must activate the Siting Criteria. This section needs to be revised to include the methodology that will be used for determining if the County has 66 months of capacity available and who will make these decisions.

- Page III-36 An applicant must always have the second choice (B. Application to County) made available to them. The fourth paragraph needs to be reworded to reflect this. Also, the Host Agreement must identify the type, extent, and location of the facility to be sited. Wording needs to be added to this section stating as such. The sixth paragraph states that the "second choice" is always available for an applicant as long as the Board of Commissioners (BOC) has activated the siting criteria. We suggest that the language " or if less than 66 months of capacity is available" be added to the end of the paragraph.
- Page III-37 Much of the information requested on this page is of an informational nature only and not related to the Siting Criteria. We suggest that a statement be included noting this and that the information won't be used to determine consistency.
- The provision in Item 7 requesting any other studies that may be deemed applicable by the appropriate governmental body should be deleted. This provision is too subjective and is not a specific Siting Criterion
- Page III-39 Item 5 is not an objective standard. How will this be measured?
- Item 6 requires that the appropriate local governmental body with jurisdiction over any road in question give consent and provide written signed evidence. The requirement of consent should be deleted as refusal of consent would preempt the siting process
- Item 1 at the bottom of the page requires that the emergency response plan be approved by the Calhoun County Emergency Services and local Emergency Planning Committee. This requirement should be deleted as lack of local approval would prevent consistency with the Plan.
- Page III-40 Item 5 is not a siting issue, and is also outside the scope of solid waste plans. Item 5 should not be included in the Plan.
- The third paragraph states that a letter will be provided to the applicant by the County DPA or BOC within thirty (30) days if a proposal is not found to be consistent with the Plan. What happens if the County DPA or BOC takes no action regarding the proposal? A provision needs to be added to the Plan regarding this issue.
- The process does not include any default outcome if the BOC fails to complete the review process. This needs to be fixed.
- Page III-41 Who are the specific public and private parties responsible for management of the areas listed?
- Page IV-1 The Plan states that more than ten years of capacity has been identified, however, I could not find any calculation or specific demonstration of disposal capacity in the Plan to confirm that over ten years of capacity exists. Although the Plan includes several landfills with over ten years of capacity, the calculation of available landfill capacity should be shown in relation to the County's disposal needs.

I appreciate the efforts that you have shown in the development of the Plan and the degree to which the Plan Format has been utilized. This makes the document much easier to review. I hope these comments are useful to Calhoun County as you attempt to develop an approvable Plan. If you have any questions or comments, please contact me by telephone or by e-mail, at staronm@state.mi.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Staron", with a stylized flourish at the end.

Matt Staron
Solid Waste Management Unit
Waste Management Division
517-373-4741

cc: Mr. Seth Phillips, DEQ
Calhoun County File



GRAND HAVEN COUNTY COMMUNITY DEVELOPMENT
ROAD COMMISSION ♦ PLANNING COMMISSION
BOARD OF PUBLIC WORKS ♦ PARKS TRUSTEES ♦ SOLID WASTE

13300 Fifteen Mile Road ♦ Marshall, Michigan 49068

Numbers
781-9841
781-5512
781-6101 FAX

Commission
n B. Austin
ra A. Frederick
d L. Ivey
P. Mange
el L. Nofs
e T. Perrett
Rhode

Commission
C. Bobrofsky
er E. Travis
D. Veramay

g Commission
ry Clark
Herwarth
Peckham
annes
Rhode
Schubel
Smith

ing
Works

Waste
umentation
ling Services
g Rehabilitation
rosion and
entation
ol
Greens
ourse



April 13, 1999

Mr. Seth Phillips
Michigan Department of Environmental Quality
Solid Waste Management Unit
P.O. Box 30241
Lansing, MI 48909-7741

Dear Seth:

Following are concerns addressed during our phone conversation earlier today. Would you please take a moment to confirm these comments and offer any changes or suggestions that you feel are appropriate in writing?

1. Any plan submitted to the DEQ that includes sending a proposal out for local approval, as part of its siting process will be disapproved by DEQ.
2. Siting Review Procedures are based on objective criteria only and allow no room for subjectivity.
3. A proposal can be put out for a public comment period, but no subjective feedback can be used in determining whether or not the proposal is consistent with the plan.
4. If a proposal is considered to be consistent with the plan, it then becomes a "de facto" part of the plan. It is not formally amended into the plan, but has the same effect as if it was.
5. In regards to offering a host community agreement as a siting procedure option, it is not acceptable to compare a proposal against the county application siting criteria if a host community agreement has been reached. It is an either/or option, not both.
6. If a host community agreement is reached and presented to the DEQ as part of the permit application process, DEQ will review the facility proposal for determination of consistency with the county's solid waste plan. This will dismiss the need for a letter from the DPA or County Board stating that the proposal is consistent with the plan.
7. In the event that a host community agreement is reached between a local unit of government and a developer, then the county will not be able to go back and negotiate, and vice versa.

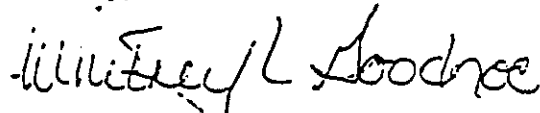
Building A Better County Through Responsive Leadership

Page 2
Seth Phillips

8. An agreement could be reached that would be a 3 party agreement: county, local unit of government and developer.

If you have any questions or concerns regarding these statements, would you please contact me at 616-781-9841. Thank you in advance for your cooperation with this matter. I look forward to hearing from you.

Sincerely,

A handwritten signature in cursive script that reads "Whitney L. Goodnoe".

Whitney L. Goodnoe
Solid Waste Specialist



Region 2 Planning Commission

Jackson County Tower Building - 16th Floor
120 West Michigan Avenue
Jackson, Michigan 49201

Fax: 517-788-4635

517-788-4426

Email: Region2@dmci.net

October 14, 1998

Mr. Roger Andrews
Calhoun County Building
315 W. Green Street
Marshall, MI 49068

RECEIVED

OCT 30 1998

LIV. CTY. HEALTH DEPT.

Dear Mr. Andrews:

This letter is written in response to your request for inclusion in the Lenawee County Solid Waste Management Plan Update. According to the proposed plan update, Lenawee County will allow intercounty flow of waste with the counties listed in the 1991 Lenawee County Solid Waste Plan. Therefore, the draft plan indicates that Calhoun County will continue to be eligible for intercounty exchange of waste with Lenawee County.

The draft Lenawee County plan update contains the following conditions regarding the import of solid waste into Lenawee County:

1. *The total solid waste received at any Lenawee County facility shall not cumulatively exceed 6,600 tons per week. Using a six day operating week, the cumulative total is therefore equivalent to a 1,100 ton per day cap yet provides some latitude for typically encountered daily operating tonnage fluctuations.*
2. *Solid waste disposal facilities in Lenawee County shall accept all waste generated within Lenawee County. In order to ensure capacity for Lenawee County waste, solid waste disposal facilities shall, on a weekly basis, reserve capacity for 1,800 tons per week of Lenawee County solid waste. If Lenawee County waste disposal does not equal or exceed 1,800 tons per week at a Lenawee County solid waste disposal facility, the facility may accept additional waste from other authorized sources not to exceed the maximum weekly cumulative cap of 6,600 tons per week. This cap of 6,600 tons per week shall be a condition of consistency to the operation of a solid waste disposal facility.*
3. *Intercounty transfer of solid waste agreements shall not be required.*
4. *Counties exporting waste to Lenawee County shall comply with Lenawee County's policy to encourage waste reduction, reuse and recycling.*



JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

"Better Service for a Better Environment"

HOLLISTER BUILDING PO BOX 30473 LANSING MI 48909-7973

INTERNET www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO:

WASTE MANAGEMENT DIVISION
PO BOX 30241
LANSING MI 48909-7741

April 22, 1999

Ms. Whitney Goodnoe
Calhoun County Community Development
13300 Fifteen Mile Road
Marshall, Michigan 49068

Dear Ms. Goodnoe:

This letter is in response to your letter of April 13, 1999 memorializing our phone conversation of that date regarding disposal area siting provisions of county solid waste management plans. For the most part, your letter accurately reflects our conversation. However, items six and seven require some clarification.

Item number six indicates that if a disposal area is sited through a host agreement process, then there will be no need for a letter of consistency from a county or its DPA to be part of the disposal area's permit application. Every application for a construction permit must include documentation from the county or its DPA indicating the county's consistency determination, if one was rendered. In the case of a host agreement, we would consider the executed host agreement as fulfilling that requirement. However, if a county wanted to provide for such a letter in addition to the host agreement, that can be described in the plan.

Item number seven indicates that if a host agreement is developed between a municipality and a developer, the county can not then negotiate further before a disposal area would be sited by the plan. The point of my discussion on this was to say that the plan should not require the development of more than one host agreement in order to establish consistency with the plan. If the county wishes to be able to negotiate issues as part of siting in an optional host agreement process, those negotiations should be part of that host agreement process. As pointed out in number eight, if desired, a host agreement process can involve both the municipality and the county as part of the same negotiations so that issues particular to each can be addressed within the same host agreement. To reiterate an important point from our discussions, no plan can be approved which contains a siting process which requires a host agreement as a condition of being found consistent with the plan.

If you have any further questions please let me know or contact Ms. Melinda Keillor at 517-373-4741.

Sincerely,

Seth Phillips, Chief
Solid Waste Management Unit
Waste Management Division
517-373-4750

cc: Ms. Mindy Keillor, WMD

RECEIVED
APR 26 1999
CALHOUN COUNTY
COMMUNITY DEVELOPMENT

LAW OFFICES
JAFFE, RAITT, HEUER & WEISS
PROFESSIONAL CORPORATION

SUITE 2400
ONE WOODWARD AVENUE
DETROIT MICHIGAN 48226

TELEPHONE (313) 961-8380
TELEFACSIMILE (313) 961-8358

SOUTHFIELD

July 21, 1998

RECEIVED

JUL 23 1998

LIV. CTY. HEALTH DEPT.

Environmental Health Division
2300 E. Grand River
Howell, MI 48843

Attention: Roger Andrews

Dear Mr. Andrews:

This letter is being sent to you on behalf of the Adrian Landfill, Inc. ("ALI"), which was formerly known as Laidlaw Waste Systems (Adrian), Inc. As you may know, Laidlaw underwent a corporate acquisition, which explains the name change of the corporation that owns the landfill. Because this was merely a name change, Adrian Landfill, Inc. is the same corporation as Laidlaw Waste Systems (Adrian), Inc.

ALI would like to assist the Calhoun County Solid Waste Planning Committee with ensuring that the Calhoun County Solid Waste Plan update reflects the current legal and practical status of the ALI landfill, located in Lenawee County, thereby assisting Calhoun County in developing a Plan that will both meet the needs of the County and obtain all of the approvals necessary to be effective

A. History

In March of 1996, Laidlaw and Lenawee County extended a pre-existing agreement, enhancing some of the benefits granted to both sides. The new agreement remains in effect until August 31, 2006, or until the Landfill's airspace is exhausted, whichever occurs first. The Agreement defines the airspace by reference to the property owned by the Landfill. In paragraph 13 of the Agreement, the County agreed to incorporate the relevant terms of the Agreement into all future amendments or updates of the Lenawee County Solid Waste Plan.

Without trying to modify or repeat all of the terms of the Agreement, of particular import are the following:

- The Landfill is authorized to accept up to an average of 6,600 tons of municipal solid waste per week over each six month period from Ohio, Indiana and Ontario, Canada or from Calhoun County in addition to a number of other specified Michigan counties which make up the regional wasteshed.
- The Landfill is authorized to accept up to an average of 6,600 tons of "special waste" per week over each six month period from outside of Michigan or from any county in the State of Michigan. Special waste is defined in the agreement as solid waste which is not generally considered residential or commercial waste

The first draft of the solid waste plan will be reviewed at the October 22, 1998 meeting of the Lenawee County Solid Waste Management Planning Committee. It is anticipated that the Plan update will be released for public comment before the end of the year.

If you have any questions, please feel free to give me a call at (517) 768-6703.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy Anderson". The signature is fluid and cursive, with the first name "Timothy" and last name "Anderson" clearly distinguishable.

Timothy Anderson
Senior Planner



DEPARTMENT OF ENVIRONMENT AND INFRASTRUCTURE SERVICES

PUBLIC WORKS DIVISION

110 NORTH FOURTH AVENUE

PO BOX 8645 ANN ARBOR MI 48107-8645

August 7, 1998

Mr. Richard Smith
Calhoun County Administrator's Office
County Bulding, 315 W. Green St.
Marshall, MI 49068

Dear Mr. Smith,

In preparing its 1998 Part 115 Solid Waste Management Plan Update, Washtenaw County is considering recognizing all 83 counties in Michigan for import/export authorization. Exhibit A (attached) describes Washtenaw County's intended import/export authorizations, including quantities, for each county in the State. Please review this document carefully, noting particularly our proposed levels of solid waste importation from and exportation to your County.

Washtenaw County currently has one licensed and operational Type II landfill located within its borders, the Arbor Hills Landfill operated by Browning Ferris Industries. Per statutory requirements, it is necessary for both the generating and receiving county plans to explicitly authorize waste transfers and amounts. Washtenaw County is hereby requesting that your County authorize the receipt of Washtenaw County solid waste, in the quantity identified in Exhibit A, through explicit authorization in your solid waste plan.

Washtenaw County intends to release the draft of its Plan Update in October of this year. In order to ensure that your County's disposal needs are included in our Plan, and that our needs are likewise included in your Plan, we would appreciate receiving written notice of your import/export intentions by September 1, 1998.

Thank you for your attention to this matter. If you have any questions or concerns, please contact me at (734) 994-2398 or via e-mail at todds@co.washtenaw.mi.us.

Sincerely,

A handwritten signature in dark ink, appearing to read "Susan Todd".

Susan Todd
Solid Waste Coordinator

Enc.

RECEIVED

AUG 11 1998
LIV CITY CLERK

ARBOR HILLS WEST EXPANDED SANITARY LANDFILL OVERALL SITE FACILITIES

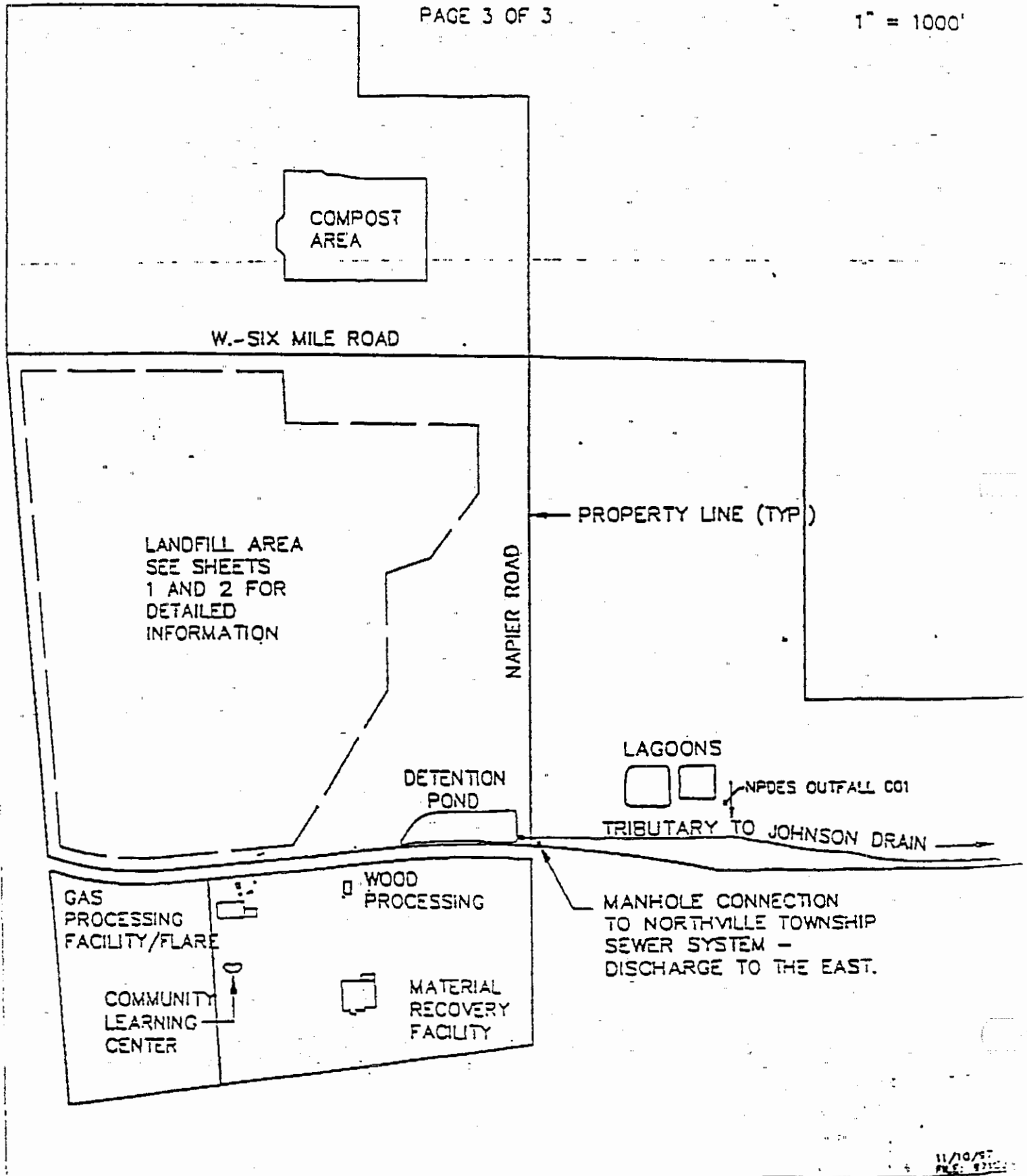
(FOR INFORMATION ONLY - NOT PART OF ARBOR HILLS
WEST EXPANDED SANITARY LANDFILL LICENSE APPLICATION)



ATTACHMENT A

PAGE 3 OF 3

1" = 1000'



Ottawa County Environmental Health

Solid Waste Management
Program

Memorandum

To: Solid Waste Management Planning
Committees/Designated Planning
Agencies for:

Allegan, Barry, Berrien, Branch,
Calhoun, Cass, Clare, Clinton, Eaton,
Gratiot, Ionia, Isabella, Kalamazoo, Kent
Lake, Mason, Mecosta, Muskegon,
Monicalm, Newago, Oceana, Osceola,
St. Joseph, Van Buren Counties.

From: Darvin J. Baas, Solid Waste Management
Coordinator 

Date: Monday, June 22, 1998

Subject: Ottawa County Import/Export
Authorizations for Type II/III Solid Waste

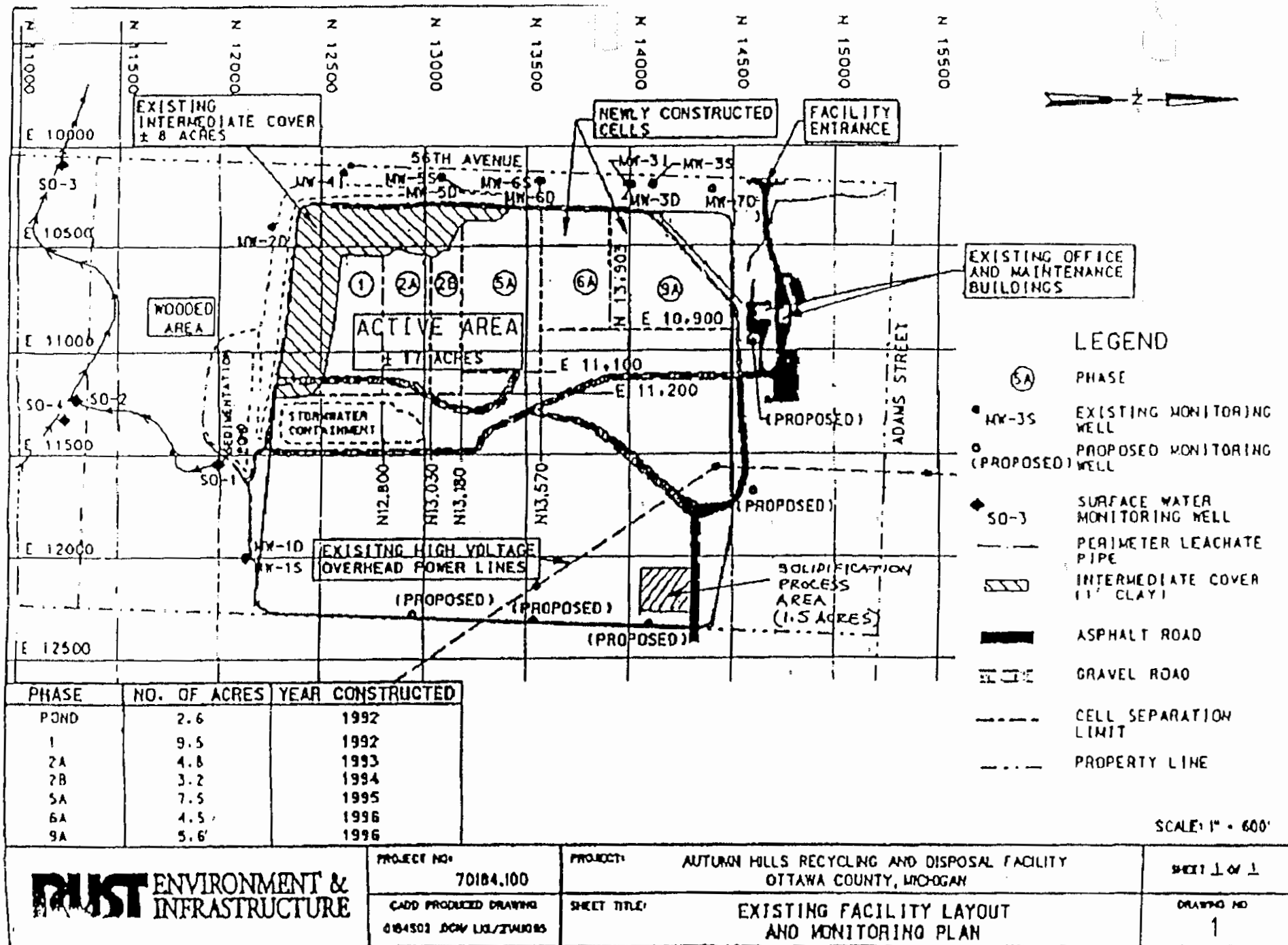
In preparing the Solid Waste Management Plan Update, Ottawa County has recognized 24 counties within the disposal region for import and export authorization.

Importation of Out-of-County Solid Waste

Ottawa County has approved the counties listed above for disposal of Type II/III solid waste and authorizes solid waste from these counties to be deposited in licensed facilities located in Ottawa County. Solid waste may be imported from one or any combination of the above listed counties if explicitly authorized by the exporting county's Solid Waste Management Plan. Disposal of solid waste in licensed Type II facilities in Ottawa County is subject to an annual cap of 1,500,000 tons annually.

Exportation of Ottawa County Solid Waste

Ottawa County will authorize the exportation of up to 100 percent of the Ottawa County solid waste stream to any of the counties listed above whose Solid Waste Management Plan specifically authorize the acceptance of Ottawa County's solid waste.



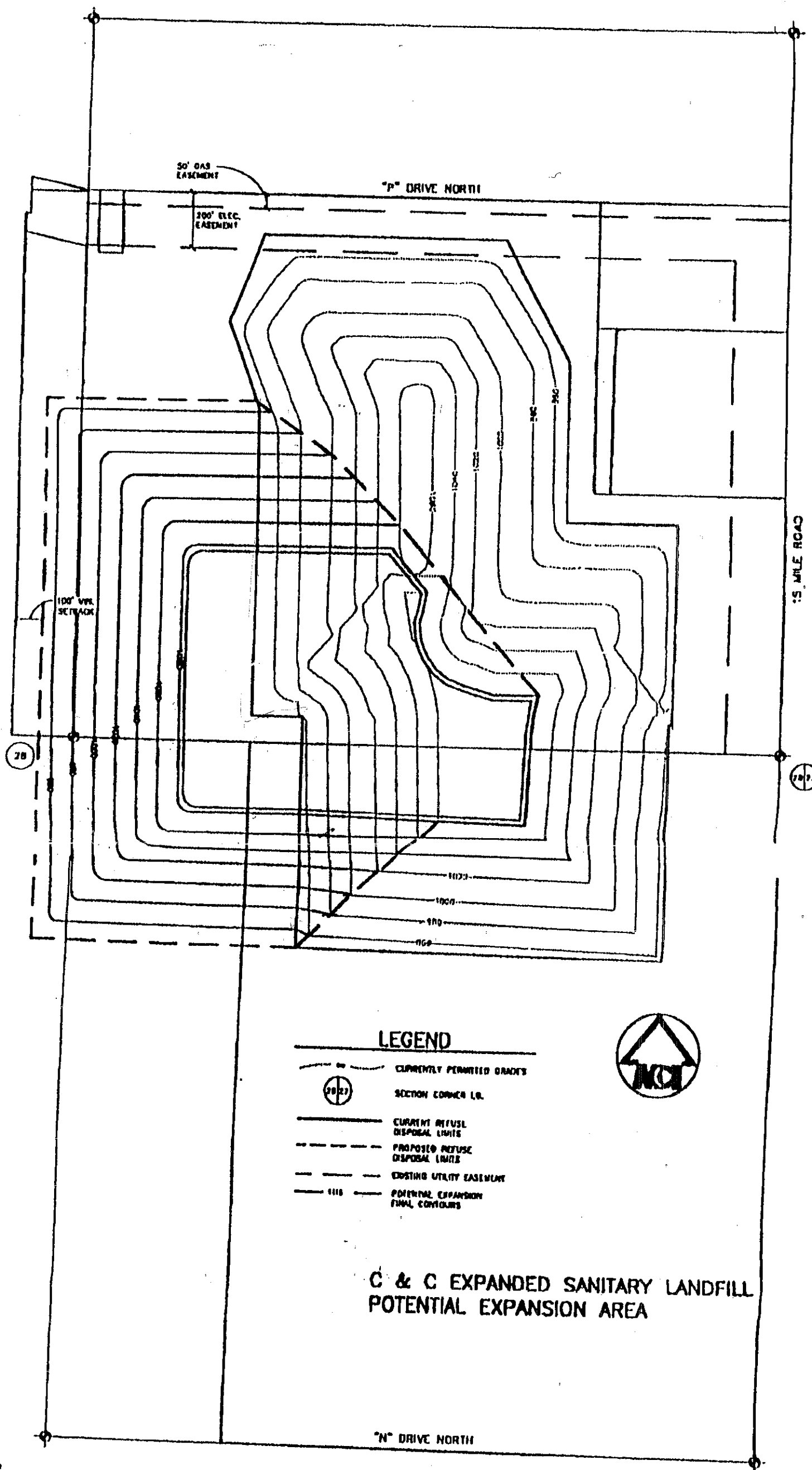


FIGURE 1

From the Calhoun County Solid Waste Management Plan

Excerpt from the August 18, 1994 Civil Agreement between Calhoun County (the County) and Browning-Ferris Industries of Southeastern Michigan, Inc. (the Company):

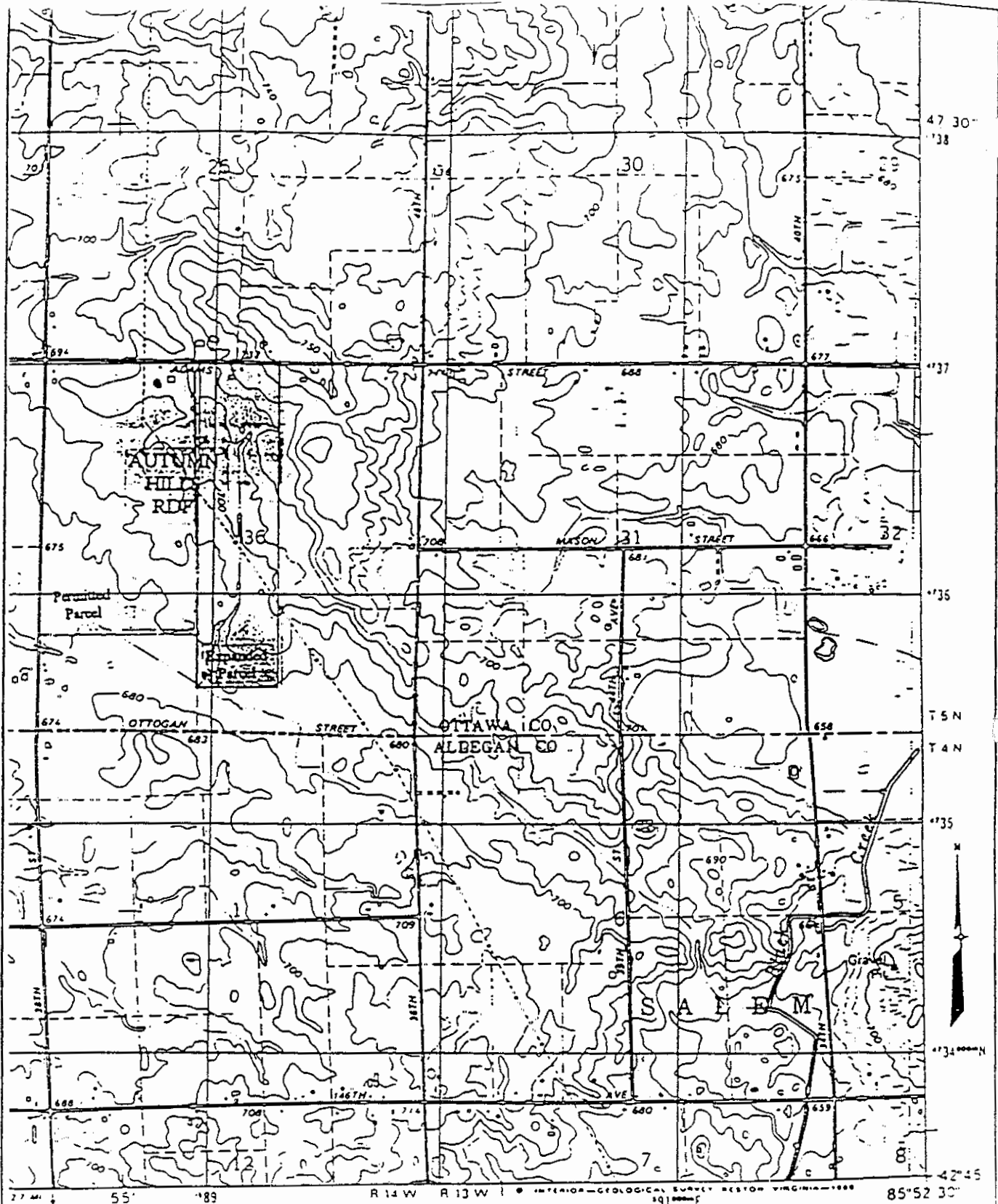
Definitions: "Landfill" means the sanitary landfill presently controlled by the Company in Convis Township, Calhoun County, Michigan, including the Expansion, but excluding future expansions or additions.

"Expansion" means the 26 acre (refuse fill area) sanitary landfill planned by the Company for addition to existing facilities in Convis Township, Calhoun County, Michigan.


- 4.03: The Company shall provide the County disposal capacity for a period of eight years after the date of this Agreement. Thereafter, the Company will use its reasonable business efforts to provide long-term disposal capacity for the County on a basis mutually acceptable to the County and the Company, through one of the following (at the Company's election): (1) the available airspace of its existing C&C Landfill and the Expansion proposed, (2) possible siting of a new landfill elsewhere in the County, and (3) the establishment of a solid waste transfer (station) facility in the County with the provision of alternative disposal capacity at a duly licensed sanitary landfill owned by the Company, in which case the landfill disposal component (excluding transportation and other charges) of the fee for disposal at the transfer facility shall not exceed the best rate charged at the Company's landfill for other customers disposing of comparable volumes and types of waste.

Excerpt from the May 6, 1999 First Amendment to the Civil Agreement dated August 18, 1994 between Calhoun County (the County) and Browning-Ferris Industries of Southeastern Michigan, Inc. ("the Company):

3. **"Second Expansion" Defined.** A new defined term is added to Article I of the Agreement to be placed in alphabetical order, as follows:
"Second Expansion" means the 16 acre (refuse fill area) Sanitary Landfill planned by the Company for addition to the existing facilities (including the Expansion) in Convis Township, Calhoun County, Michigan as generally described in the Amended Host Community Agreement dated February 26, 1999 by and between Convis Township and the Company, as such description might be modified by mutual consent of the Township and the Company.
4. **Minimum Disposal Capacity.** Section 4.03 of the Agreement is amended by the adding the following after the first sentence:
If the Company commences operations in the Second Expansion, the Company shall provide the County with additional disposal capacity for an additional period which will end ten (10) years after the date of the approval by the Michigan Department of Environmental Quality of the pending update of the Plan.



LEGEND

 - SITE

MAP SOURCE: PART OF U.S.C.S. HUDSONVILLE WEST QUADRANGLE MAP

0' 5' 1'
SCALE: 1"=2000'

RUST ENVIRONMENT & INFRASTRUCTURE

PROJECT: AUTUMN HILLS RECYCLING AND DISPOSAL FACILITY

PROJECT NO: 74525.100

FIGURE 2 - 2

ENVIRONMENTAL ASSESSMENT REPORT
PERMIT MODIFICATIONS

SITE TOPOGRAPHY

SITE PLAN OF FOREST LAWN LANDFILL

PARCEL A

THAT PART OF THE SOUTH HALF OF SECTION 17, TOWNSHIP 8 SOUTH, RANGE 20 WEST, THREE OAKS TOWNSHIP, BERRIEN COUNTY, MICHIGAN, DESCRIBED AS: COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 17; THENCE NORTH ON THE EAST LINE OF SAID SECTION 17, A DISTANCE OF 988.30 FEET TO THE POINT OF BEGINNING OF THE LAND HEREIN DESCRIBED; THENCE SOUTH 89 DEGREES 31' 04" WEST 1324.37 FEET; THENCE SOUTH 0 DEGREES 04' 40" WEST 958.36 FEET TO THE SOUTH LINE OF SAID SECTION 17; THENCE SOUTH 89 DEGREES 30' 57" WEST ON SAID SOUTH LINE 1320.12 FEET TO THE SOUTH QUARTER CORNER OF SAID SECTION 17; THENCE CONTINUING ON SAID SOUTH LINE SOUTH 89 DEGREES 30' 00" WEST 467.83 FEET; THENCE NORTH 0 DEGREES 00' 46" WEST 412.50 FEET; THENCE NORTH 24 DEGREES 32' 13" WEST 397.50 FEET; THENCE NORTH 89 DEGREES 30' 57" EAST 55.54 FEET TO A MEANDER POINT; THENCE NORTH 13 DEGREES 04' 14" WEST ON A MEANDER LINE 280.87 FEET TO A MEANDER POINT; THENCE NORTH 28 DEGREES 13' 11" WEST ON A MEANDER LINE 134.62 FEET TO A MEANDER POINT; THENCE NORTH 14 DEGREES 07' 29" WEST ON A MEANDER LINE 362.52 FEET TO A MEANDER POINT; THENCE NORTH 6 DEGREES 40' 21" EAST ON A MEANDER LINE 183.06 FEET TO A MEANDER POINT; THENCE NORTH 42 DEGREES 48' 52" WEST ON A MEANDER LINE 834.91 FEET TO A MEANDER POINT, SAID POINT ALSO BEING ON THE WEST LINE OF THE EAST HALF OF THE SOUTHEAST QUARTER OF SAID SECTION 17; THENCE NORTH 0 DEGREES 02' 52" WEST ON SAID WEST LINE 198.61 FEET TO THE CENTERLINE OF FOREST LAWN ROAD; THENCE SOUTH 66 DEGREES 05' 33" EAST ON SAID CENTERLINE 390.23 FEET; THENCE SOUTHEASTERLY ON SAID CENTERLINE 362.84 FEET ON A 806.99 FOOT RADIUS CURVE TO THE LEFT WHOSE CHORD BEARS SOUTH 80 DEGREES 55' 55" EAST 359.79 FEET; THENCE NORTH 88 DEGREES 08' 46" EAST ON SAID CENTERLINE 839.23 FEET; THENCE SOUTH 81 DEGREES 44' 07" EAST ON SAID CENTERLINE 1331.19 FEET; THENCE SOUTH 82 DEGREES 36' 03" EAST ON SAID CENTERLINE 1126.32 FEET TO THE EAST LINE OF SAID SECTION 17; THENCE SOUTH ON SAID EAST LINE 972.38 FEET TO THE POINT OF BEGINNING. ALSO THE LAND LYING BETWEEN SAID MEANDER LINE AND THE CENTERLINE OF THE GALIEN RIVER.

CONTAINING 94.36 ACRES MORE OR LESS.

SUBJECT TO THE RIGHTS OF THE PUBLIC AND OF ANY GOVERNMENTAL UNIT IN ANY PART THEREOF TAKEN, USED, OR DEEDED FOR STREET, ROAD, OR HIGHWAY PURPOSES.

THIS SURVEY COMPLIES WITH THE REQUIREMENTS OF SECTION 3, P.A. 132 OF 1970 AS AMENDED.

THIS SURVEY WAS PERFORMED WITH AN ERROR OF CLOSURE NO GREATER THAN 1 IN 5000.

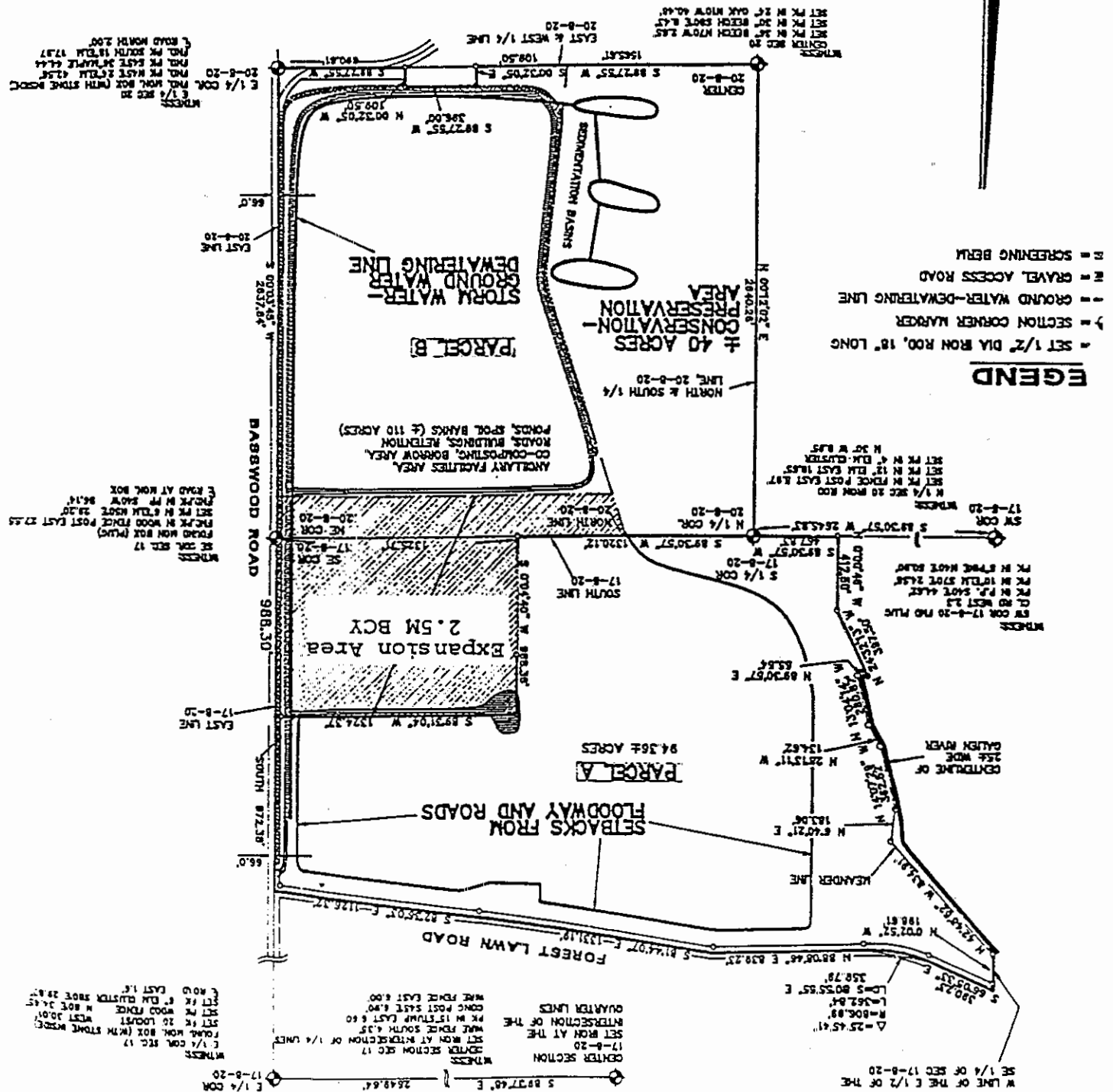
ASSUMED THE EAST LINE OF SAID SECTION 17 TO BEAR SOUTH.

PARCEL B

THAT PART OF THE NORTHEAST QUARTER OF SECTION 20, TOWNSHIP 8 SOUTH, RANGE 20 WEST, THREE OAKS TOWNSHIP, BERRIEN COUNTY, MICHIGAN, AND THAT PART OF THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 17, TOWNSHIP 8 SOUTH, RANGE 20 WEST, THREE OAKS TOWNSHIP, BERRIEN COUNTY, MICHIGAN, DESCRIBED AS: BEGINNING AT THE NORTHEAST CORNER OF SAID SECTION 20; THENCE SOUTH 0 DEGREES 03' 45" WEST ON THE EAST LINE OF SAID SECTION 20, A DISTANCE OF 2637.84 FEET TO THE EAST QUARTER CORNER OF SAID SECTION 20; THENCE SOUTH 89 DEGREES 27' 55" WEST ON THE EAST AND WEST QUARTER LINE OF SAID SECTION 20, A DISTANCE OF 690.61 FEET; THENCE NORTH 0 DEGREES 32' 05" WEST 109.50 FEET; THENCE SOUTH 89 DEGREES 27' 55" WEST 396.00 FEET; THENCE SOUTH 0 DEGREES 32' 05" EAST 109.50 FEET TO A POINT ON THE EAST AND WEST QUARTER LINE OF SAID SECTION 20; THENCE SOUTH 89 DEGREES 27' 55" WEST ON SAID EAST AND WEST QUARTER LINE 1565.61 FEET

GRAPHIC SCALE

(IN FEET)
1 inch = 100 ft.



Mr. Roger Andrews
July 21, 1998
Page 2

and which is generally homogenous in nature and generated in bulk, including, but not limited to: contaminated soil, construction and demolition debris, foundry sand, sludges, street sweepings, fly ash, bottom ash, slag, auto fluff and agricultural wastes.

B. Current and Future Disposal Capacity

ALI currently has an estimated 1,540,000 cubic yards of disposal capacity available to it, which, at current rates of receipt would mean an anticipated life of seven years. This includes receipts from outside Lenawee County. Recently, ALI applied for MDEQ approval of a construction permit for an expansion that would allow the acceptance of an additional 3,650,000 cubic yards of waste, which translates into an anticipated additional life of 16 years, for a total of 23 years. While ALI has not projected beyond that point, it does have substantial additional land reserves at the same location.

The current Lenawee County Solid Waste Plan identifies Calhoun County as an approved source of waste for disposal in Lenawee County. See enclosure. Pursuant to the March 3, 1995 amendment to the Calhoun County Solid Waste Plan, Lenawee County is identified in the Calhoun County Solid Waste Plan as an approved source of waste for disposal in Calhoun County for up to 494,208 gate cubic yards per year.

ALI is working with the Lenawee County Solid Waste Planning Committee and fully expects that its 1996 agreement will be incorporated into the Lenawee County Solid Waste Plan Update.

C. Proposal

Therefore, ALI has and will have disposal capacity available to the residents and businesses of Calhoun County and requests that its facility in Lenawee County, Michigan be incorporated into the Calhoun County Solid Waste Plan Update. We believe that it is appropriate to, and request that your Committee, include Lenawee County as an approved location for disposal of Calhoun County waste of up to 343,200 tons per year or 1,029,600 gate cubic yards per year. We understand that Calhoun County is currently pursuing an amendment to its Solid Waste Plan and we further request that this request also apply to such amendment. This request shall not prejudice any prior Laidlaw request relating to any other former Laidlaw landfills, which requests should still be deemed in effect.

We believe that this proposal is consistent with and satisfies the requirements of Michigan Environmental Code Part 115 sections 11533(1), 11538(1)(a), 11538(1)(i), and 11538(2) and Michigan Administrative Code Rules R 299.4711(e)(iii), all of which specify the content of every county's solid waste management plan.

I will be the primary contact and will be responsible for providing any information that the Calhoun Solid Waste Planning Committee requires. I look forward to working with the Committee to ensure a smooth transition between the old and new Plans and to ensure that Calhoun County has a safe, secure and environmentally sound waste management program for years to come.

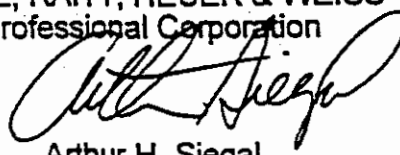
JAFFE, RAITT, HEUER & WEISS

Mr. Roger Andrews
July 21, 1998
Page 3

If you have any questions, please feel free to call me. My telephone number is (313) 961-8380. I hope the above assists the Committee with its project. Thank you for your cooperation in this matter.

Sincerely,

JAFFE, RAITT, HEUER & WEISS
Professional Corporation



Arthur H. Siegal

AHS/vip
Enclosure
cc: Mr. William Cramb, ALI
0568383.01

Berrien County Solid Waste Management Plan Update
Unit II

SOUTHEAST BERRIEN COUNTY LANDFILL

ADDRESS: 3200 Chamberland Road
Buchanan, MI 49107
(616) 695-2500

LOCATION: Bertrand Township (Section 6-8-17)

OWNERSHIP: Southeast Berrien County Landfill Authority
(Bertrand, Buchanan, Niles Townships and Buchanan,
Niles Cities)

OPERATING COMPANY: Southeast Berrien County Landfill Authority

CAPACITY: Current permitted area - 3,335,000 cubic yards of air space
(Phases III and IV)
Expansion area - 3,500,000 cubic yards of air space

CURRENT TIPPING FEE: \$6.85 average/cubic yard

TYPE OF WASTE RECEIVED: General mixed solid waste as defined and permitted by Act 641. This does not include municipal solid waste incinerator ash regulated by MCL 299.432 a(2)-(9).

Each member municipality of the Southeast Berrien County Landfill Authority has entered into an agreement with the Authority that requires them to deliver, or cause to be delivered to the Authority's disposal site, all of the garbage and rubbish collected within all areas under the jurisdiction and control of the member municipality.

Subsequent to this agreement, the Berrien County Circuit Court ruled that the five municipalities cannot force any party under their jurisdiction to deliver their garbage/rubbish to the SEBC Landfill. A large percentage of the waste in the five units is currently being hauled out of the area/county.

The projected expansion area of this facility is not subject to the Site Designation procedure on Page 46. The expansion is however subject to the procedure for receiving a determination of consistency with this Updated Plan outlined on Page 48.

TO THE CENTER OF SAID SECTION 20; THENCE NORTH 0 DEGREES 12' 02" EAST ON THE NORTH AND SOUTH QUARTER LINE OF SAID SECTION 20; A DISTANCE OF 2640.26 FEET TO THE NORTH QUARTER CORNER OF SAID SECTION 20; THENCE NORTH 89 DEGREES 30' 57" EAST ON THE NORTH LINE OF SAID SECTION 20, A DISTANCE OF 1320.12 FEET; THENCE NORTH 0 DEGREES 04' 40" WEST 988.36 FEET; THENCE NORTH 89 DEGREES 31' 04" EAST 1324.37 FEET TO A POINT ON THE EAST LINE OF SAID SECTION 17; THENCE SOUTH ON SAID EAST LINE 988.30 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 17 AND THE PLACE OF BEGINNING.

CONTAINING 189.55 ACRES, MORE OR LESS.

SUBJECT TO THE RIGHTS OF THE PUBLIC AND OF ANY GOVERNMENTAL UNIT IN ANY PART THEREOF TAKEN, USED OR DEEDED FOR STREET, ROAD, OR HIGHWAY PURPOSES

THIS SURVEY COMPLIES WITH THE REQUIREMENTS OF SECTION 3, P. A. 132 OR 1970 AS AMENDED.

THIS SURVEY WAS PERFORMED WITH AN ERROR OF CLOSURE NO GREATER THAN 1 IN 5000.

ASSUMED THE EAST LINE OF SAID SECTION 17 TO BEAR SOUTH.

Clinton County
Department of Waste Management
Designated Implementation Agency



May 20, 1998

Mr. Roger Andrews
Calhoun County Bldg.
315 West Green Street
Marshall, MI 49068

RE: Request for information regarding Import/Export authorizations with Clinton County

Dear Roger,

We have not yet taken the issue of authorizing counties for import and/or export beyond our sub-committee level. I can tell you that at the sub-committee level, Calhoun County is named as one of the Counties being considered for inclusion in the Plan. Like Calhoun's Plan, the service area to be designated in the Updated Plan will likely be substantially expanded from the present service area if subcommittee discussions are an indication. The only condition set, to date, is that there be reciprocity among the counties named. Quantity limitations have not been considered, though total annual caps and reservation for Clinton County waste will be issues that the two local facilities will need to consider when accepting waste from other counties.

Included in this letter is a disposal facility descriptions completed by Granger for both the Wood Street and Grand River Avenue locations. We do not have any other disposal facilities located within this County's boundaries. Note: Daggett Sand and Gravel is a type III recovery facility and landfill. The landfill portion of the business is actually located within Ingham County boundaries.

Presently, Granger is authorized through the Plan to receive waste from Clinton, Gratiot, Shiawassee, Ingham, Eaton and Ionia Counties. Granger has requested that five counties be added to the *current* Plan. That listing includes Calhoun. The Board of Commissioners has approved the addition of the five counties with certain conditions. The conditions do not indicate volume limitations. The Solid Waste Planning Committee will review the amending language at its May meeting; the Board of Commissioners will take final action on the



Ingham County Health Department

Bruce B. Bragg, M.P.H., Director
Dean G. Sienko, M.D., M.S., Medical Director

Human Services Building
5303 South Cedar Street
P.O. Box 30161
Lansing, Michigan 48909-7661
FAX (517) 887-4560

Bureau of Environmental Health
(517) 887-4312

TO: Designated Planning Agencies

FROM: James Wilson *JW*
Ingham County Designated Planning Agency

DATE: April 23, 1998

RE: Core County and Disposal Facility Authorization

The Ingham County Solid Waste Planning Subcommittee, responsible for identifying and recommending counties and disposal facilities in our Plan update, met April 14, 1998. At that meeting we discussed counties we would like to have authorized in our Plan update. We would appreciate your input on how you are approaching authorization and what counties you are considering in your Plan update.

Our Subcommittee has identified sixteen counties, and has sent letters to sixteen Solid Waste Disposal Facilities within a 100 mile radius to find out if they would like to be considered in our Plan update. The Subcommittee is in the early stage of developing guidance in recognizing both counties and facilities in the planning process, but seemed to be leaning towards open flow between Core Counties (counties within a 100 mile radius) and as long as there is export / import parity in flow between counties. Basically we would like to have each county identified in each other's Plan update. We understand some counties have limited space in their disposal facility and, if they have import authorization, will need to have ceiling or volume limits on waste received by their disposal facility. However, the authorization of each other in our Plan update will help protect us from needing to rewrite our Plans if the market changes in the future. This will give us more flexibility, without needing to rewriting the Plan and in dealing with disposal facilities in our core area.

Ingham County is approaching disposal facilities differently than how they were addressed in the past Planning process. We are treating them as separate entities and believe each one of them needs to be authorized, as do counties, in the planning process.



amendment at its June meeting - after which we will officially notify Calhoun of the amendment and put the language out to the municipalities for the requisite 2/3 vote.

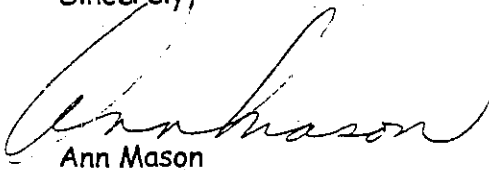
Currently, Clinton County generates about 90,000 cubic yards of waste needing disposal at a rate of about XX pounds/person (Cubic yards in 1997 divided by 1990 census population + 9%). Estimates indicate that our population has grown, since the 1990 census, by about 9 - 10%. Based upon increased development at the south end of the county, bordering metropolitan Lansing, we suspect this trend will increase. Therefore our estimates are that volumes of waste being landfilled from Clinton County will be as follows:

1997	1998	1999	2000	2001	2002
95,010	95,960	96,920	97,889	98,868	99,856
in cubic yards					

By in large, Clinton County continues to be a farming county with over 86% of the land being utilized in active farming. The 'suburban' resident is on the increase however, with numerous commuters living in the County - out in the country - and commuting to Lansing, Owosso, Flint, Grand Rapids, etc.

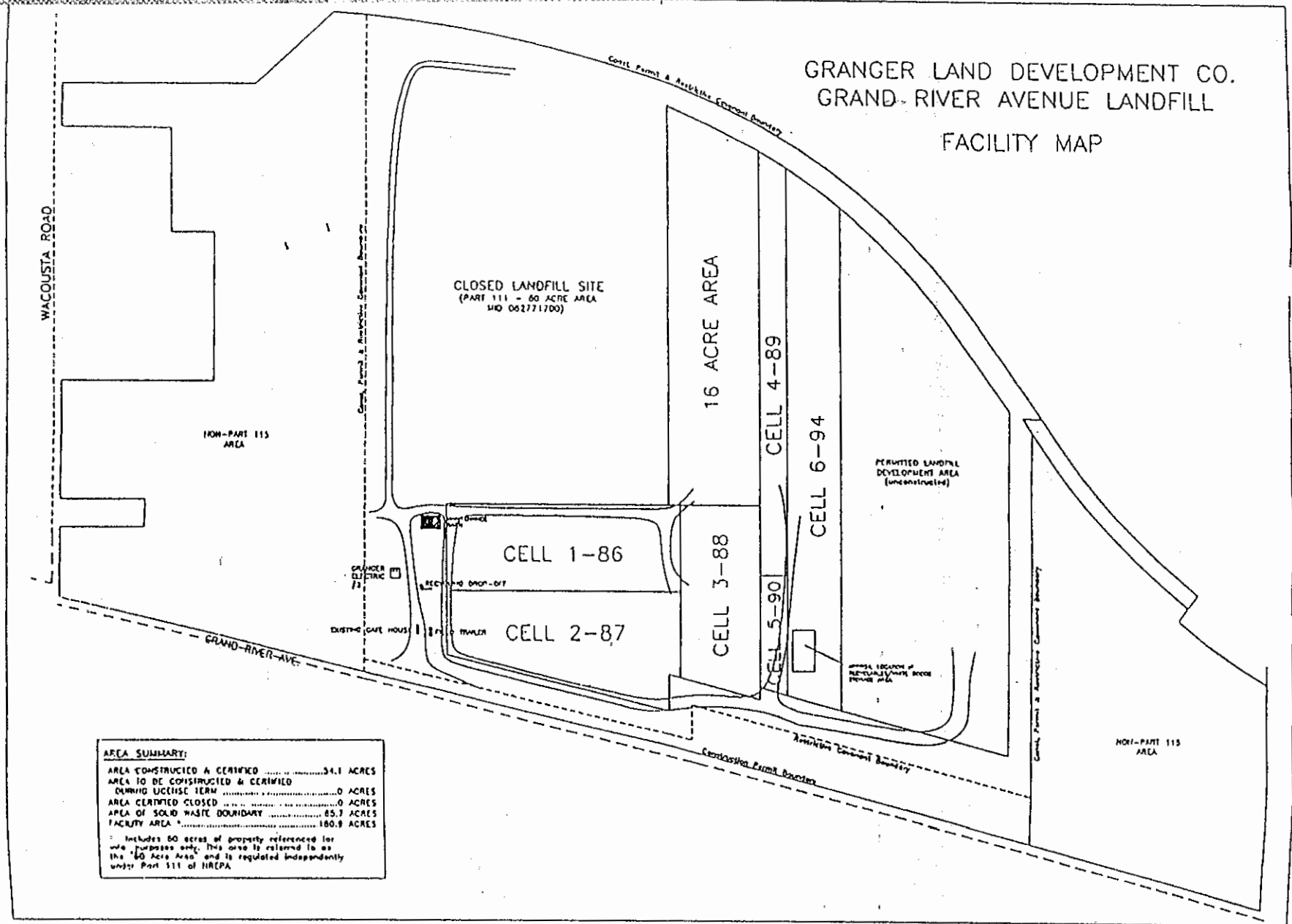
I hope this information is sufficient for your purposes. I will notify you once import/export counties are firmed up by the full Committee for purposes of our Plan Update process. Otherwise, please phone with questions or if you need clarification on any information provided.

Sincerely,



Ann Mason

GRANGER LAND DEVELOPMENT CO.
GRAND-RIVER AVENUE LANDFILL
FACILITY MAP



AREA SUMMARY:

AREA CONSTRUCTED & CERTIFIED	34.1 ACRES
AREA TO BE CONSTRUCTED & CERTIFIED DURING LICENSE TERM	0 ACRES
AREA CERTIFIED CLOSED	0 ACRES
AREA OF SOLID WASTE BOUNDARY	85.7 ACRES
FACILITY AREA *	180.9 ACRES

* Includes 60 acres of property referenced for use purposes only. This area is referred to as the "60 Acre Area" and is regulated independently under Part 111 of HREPA.

**BARRY
COUNTY
COURTHOUSE**
220 W. STATE STREET
HASTINGS, MICHIGAN 49058



May 28, 1998

Ms Terri Zick - Chairman
Calhoun County Solid Waste Planning Committee
Calhoun County
Administration Office
315 W Green St.
Marshall, Mi. 49068


Dear Ms Zick,

Last year, the Department of Environmental Quality approved amendments to the Barry County Solid Waste Plan authorizing export of Solid waste from Barry County to all 82 counties in Michigan, and primary disposal at our landfill in Hastings from 19 Michigan counties - one of which is Calhoun County.

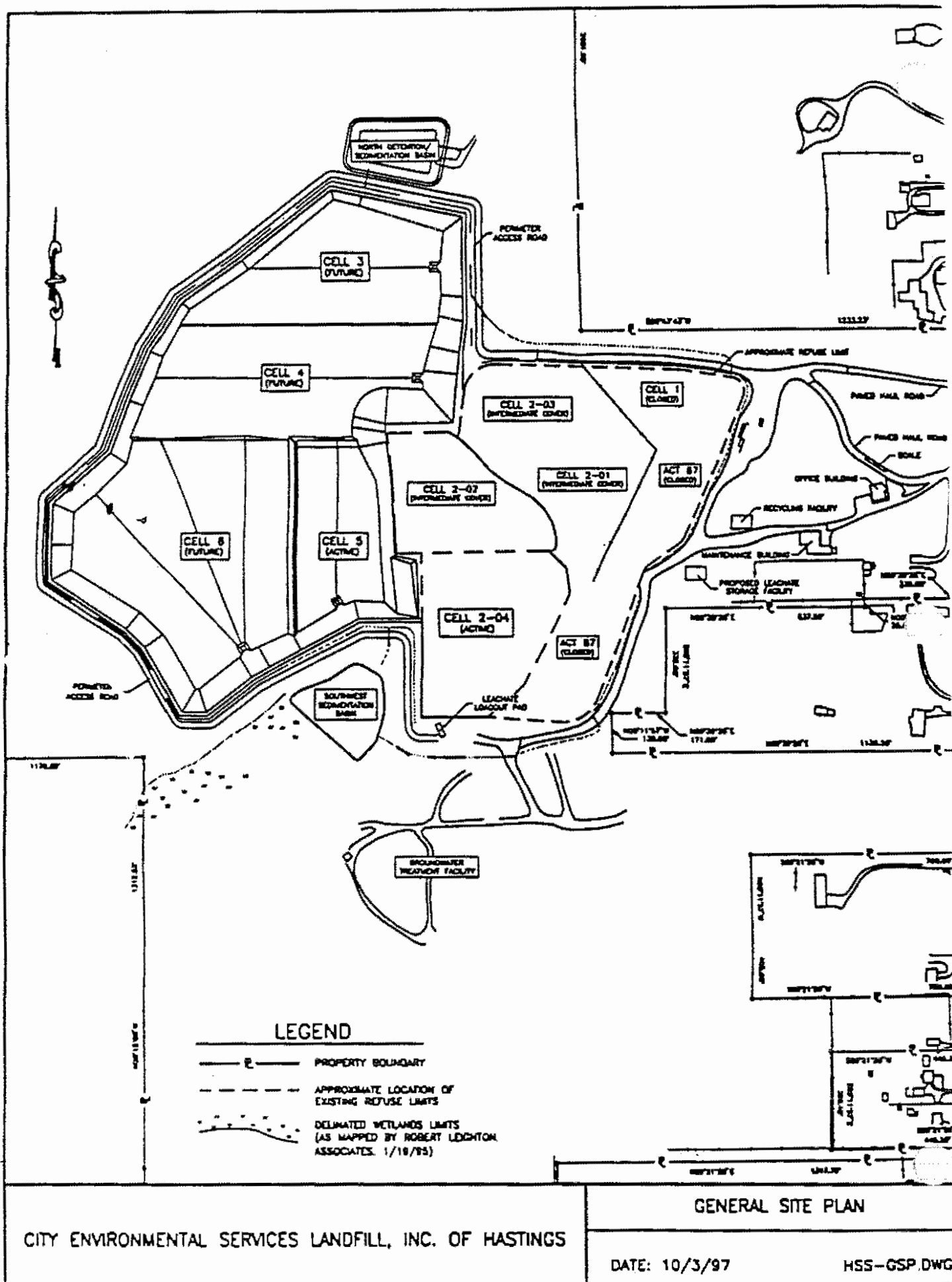
We respectfully request you take whatever actions are necessary to provide explicit authority for the exportation of solid waste from Calhoun County to Barry County. We realize you are commencing the process of updating your solid waste management plan and inclusion of our request in that update would be timely for our purposes

If there is any further information you may need or if you would like to discuss this matter further, please do not hesitate to contact me at (616) 945-9516

Sincerely,


V. Harry Adroumie, Ph.D
Chairman

cc: Mr Ronald L. Ivey
Mr. Roger Andrews
Ms Keeley Taylor





RESOURCE RECOVERY PROJECT OF IONIA COUNTY

March 13, 1998

TO: Designated Planning Agencies for Berrien, Branch, Calhoun, Cass, Clare, Jackson, Kalamazoo, Midland, Mecosta, Osceola, Saginaw, Shiawassee, St. Joseph, Van Buren, and Wexford Counties

FROM: Don Lehman, Ionia County Solid Waste Coordinator

RE: Solid Waste Management Plan Import/Export Arrangements

At Ionia County's Solid Waste Planning Committee meeting on March 5, your county was designated as a county from which "Special Wastes" will be accepted at solid waste disposal facilities in Ionia County. Presently that consists of the Pitsch Landfill in northwest Ionia County. "Special Wastes," as described in Ionia County's Solid Waste Management Plan, consists of construction and demolition debris, foundry sand, sludge, contaminated soils, street sweepings, fly ash, slag, agricultural waste, and others. These "Special Wastes" are Type II wastes, but exclude general Type II residential, commercial, and industrial wastes.

As Ionia County updates its SWMP we will be listing your county as a potential exporter of "Special Waste" to Ionia County. Ionia County's Solid Waste Planning Committee requests that your Solid Waste Management Plan records Ionia County as an importing County for this type of waste. Some counties may desire that this type of arrangement be reciprocal and want their county to be recorded as an importing county for some of Ionia County's waste. If this is the desire of your Solid Waste Planning Committee, please contact me at your convenience.

Ionia County will most likely put an annual cap on the amount of waste permitted to be disposed of at the Pitsch Landfill in order to maintain sufficient capacity for Ionia County's future needs. This could put some restrictions on the use of Pitsch Landfill by your county, but under current conditions the need for restrictions seems to be very limited or even nonexistent.

If you have any questions or comments about Ionia County's intent in proposing this waste disposal relationship, please contact me with your questions or concerns. It is to be hoped that this type of arrangement will help provide your county, and Ionia County, with both primary and contingency capacity over the next ten years and beyond.

Sincerely,

A handwritten signature in cursive script, reading "Don Lehman".

Donald Lehman
Solid Waste Coordinator

Demolition Engineers
Asbestos Abatement
Salvaged Building Materials
Excavating and Underground Services
Concrete Recycling



Companies

SANITARY DIVISION

- Landfill Operation
- Dumpster Service
- Commercial & Residential Waste Services
- Land Development

June 15, 1998

Mr. Roger Andrews
Solid Waste Coordination (DPA)
Calhoun County Building
315 West Green Street
Marshall, MI 49068

Dear Mr. Andrews:

Enclosed is the Survey Form for Calhoun Solid Waste Planning. Currently our landfill does not have any hauling companies using our facility, the only company that currently would use our service would be Pitsch Demolition Contractors for the disposal of Demolition and Asbestos waste. I have included approximate yardage, these estimates are high because of the nature of the business.

Our facility and Ionia County would like to be listed in your revised Calhoun Solid Waste Plan. If you have any questions please call me.

Sincerely,


Douglas A. Carson

Director of Communications

Enclosures: [2]

Westside R.D.F.
P.O. Box 392
14094 M-60 West
Three Rivers, MI 49093
616/279-5444 • FAX: 616/273-1662



A Waste Management Company

March 18, 1998

Roger Andrews
Solid Waste Coordinator
Calhoun County Building
315 W. Green St.
Marshall, MI 49068

Dear Mr. Andrews:

Attached is a site map of Waste Management - Westside RDF and your fact sheet as amended. You also requested to know the capacity that would be available to Calhoun County for disposal of solid waste generated within Calhoun County. As I am sure you are aware, Waste Management operates a transfer station in your county. Westside RDF has accepted waste from Calhoun County for a number of years. The volume we have accepted is included in the total annual volume as specified on your fact sheet.

In 1995 the St. Joseph County Plan was amended to allow our landfill to accept up to a combined total of 1,500,000 cubic yards of waste from any authorized counties in our plan. The only restriction that we have is that we will give first priority to St Joseph County solid waste should we reach the annual volume limit. I want to assure you that we are currently a long way from having to make that decision.

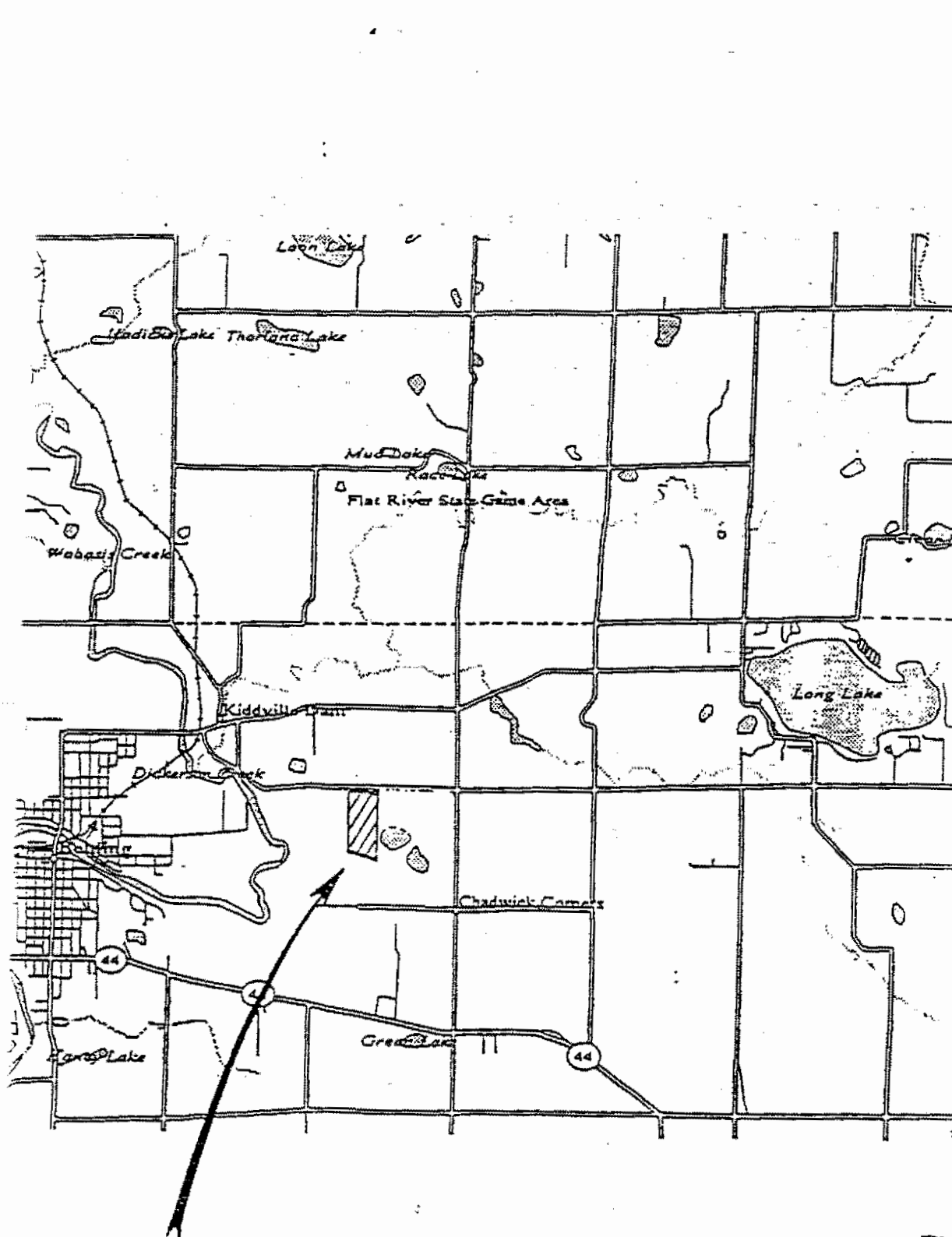
We are allowed to accept waste, without limit, from authorized counties, up to 1,500,000 cubic yards per year. Our best estimate, based on 1997 volumes, for Calhoun county is a little over 300,000 cubic yards.

Joseph County has also started the Solid Waste Management Plan update process and it is my belief that the current philosophy regarding waste acceptance will continue to be a part of our updated plan.

If you have any questions, please give me a call.

Yours Truly,

Tom Wilson
Site Manager



Sanitary Landfill

Figure 1

Regional Location Map

Pitsch Sanitary Landfill

Kiddville Road

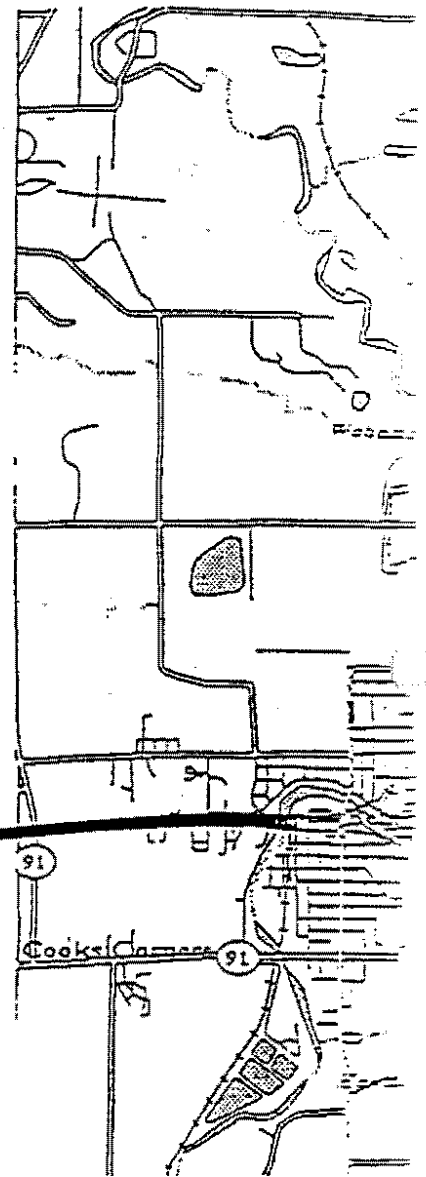
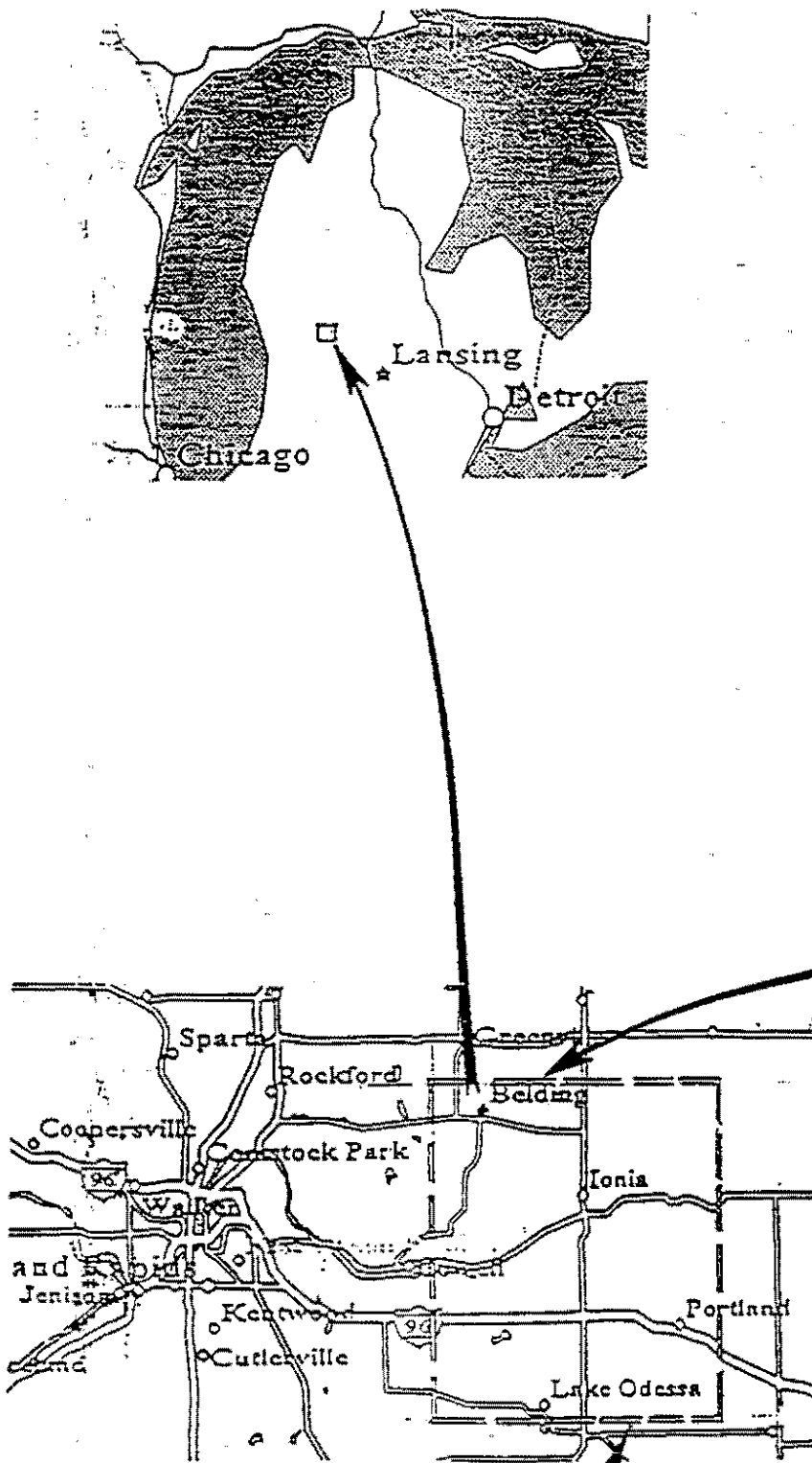
Ionia County

Bellevue, Michigan

Aqua-Tech Consultants, Inc.

1336 Schaefer NW

Grand Rapids, MI 49504



Pitsch Sanitation

Ionia County



Georgia-Pacific Corporation

2425 King Highway
Kalamazoo, Michigan 49001
Telephone (616) 382-2890

March 26, 1998

Mr. Roger Andrews
Solid Waste Coordinator (DPA)
Calhoun County Building
315 W. Green Street
Marshall, MI 49068

RE: KVG Landfill

Dear Mr. Andrews:

Enclosed is a map of the KVG Landfill, along with a copy of your database fact sheet of the Landfill. The information on the fact sheet appears correct with the one addition.

In response to questions asked in your letter, the KVG Landfill is currently permitted to accept wastes from members only. Members may be added, but a modification to the landfill permit must be obtained. There are currently no plans to expand the KVG Landfill partnership. There are no restrictions on landfill waste volumes, therefore, the volume available to Calhoun County would only be restricted by available capacity.

If you have any additional questions, please feel free to contact me at 616-349-0317.

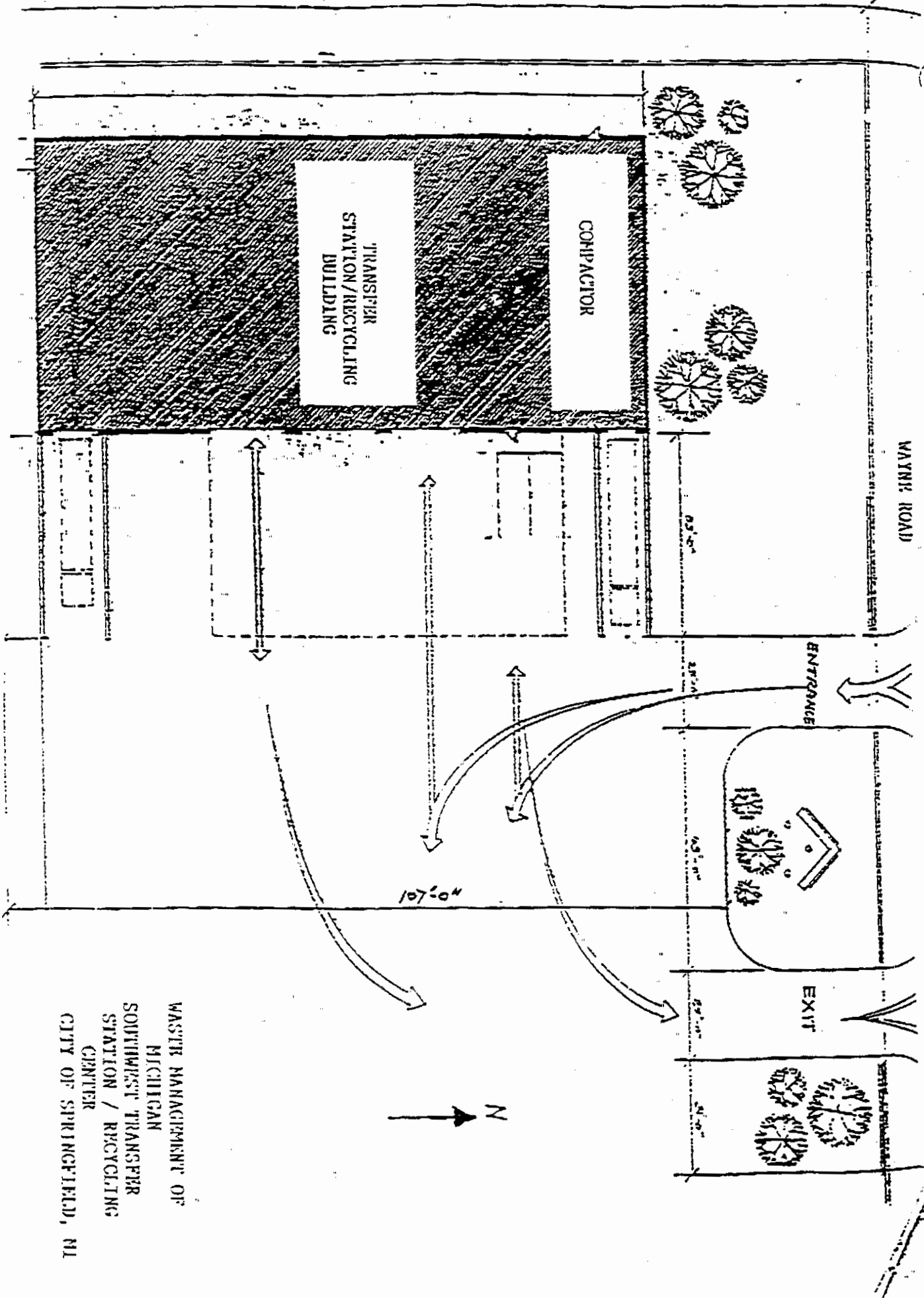
Sincerely,

Daniel O. Cummins, P.G.
Senior Environmental Engineer

Enclosures

cc: R. Larrick
G. Hultmark

(kvg26.doc)





Waste Management

Grand Rapids Customer Service Center
1668 Porter Street, S.W.
Grand Rapids, Michigan 49509-1795

Phone 616 538 3750

May 1, 1998

Mr. Roger Andrews
Calhoun County Administrator's Office
County Building
315 West Green Street
Marshall, MI 49068

Re: Waste Management Landfills in Michigan

Dear Solid Waste Planning Committee Members:

Waste Management of Michigan, Inc. owns and operates eight (8) licensed solid waste landfills located throughout the lower peninsula of Michigan. All of these landfills are allowed to receive waste from many counties and a few from all counties in the lower peninsula. Attached please find the following information:

1. MDEQ standard format information sheets for each of our landfills.
2. A map showing the location of our landfills.
3. A listing for each landfill showing which counties may import waste to the site.

The list of counties for each site is based upon existing county plans or our existing host agreements with counties which provide for the county to add these counties during the current plan updates. In most cases there is no requirement to have signed inter-county agreements. However, for those counties that do require inter-county agreements, we have indicated that on the sheet. We are encouraging all counties to have their plans as open as possible with regards to inter-county transfers and to not require signed agreements between the counties. In some cases, we are requesting our host counties to add additional counties, during the update process, which are not covered under a host agreement. These are also indicated on the attached sheets.

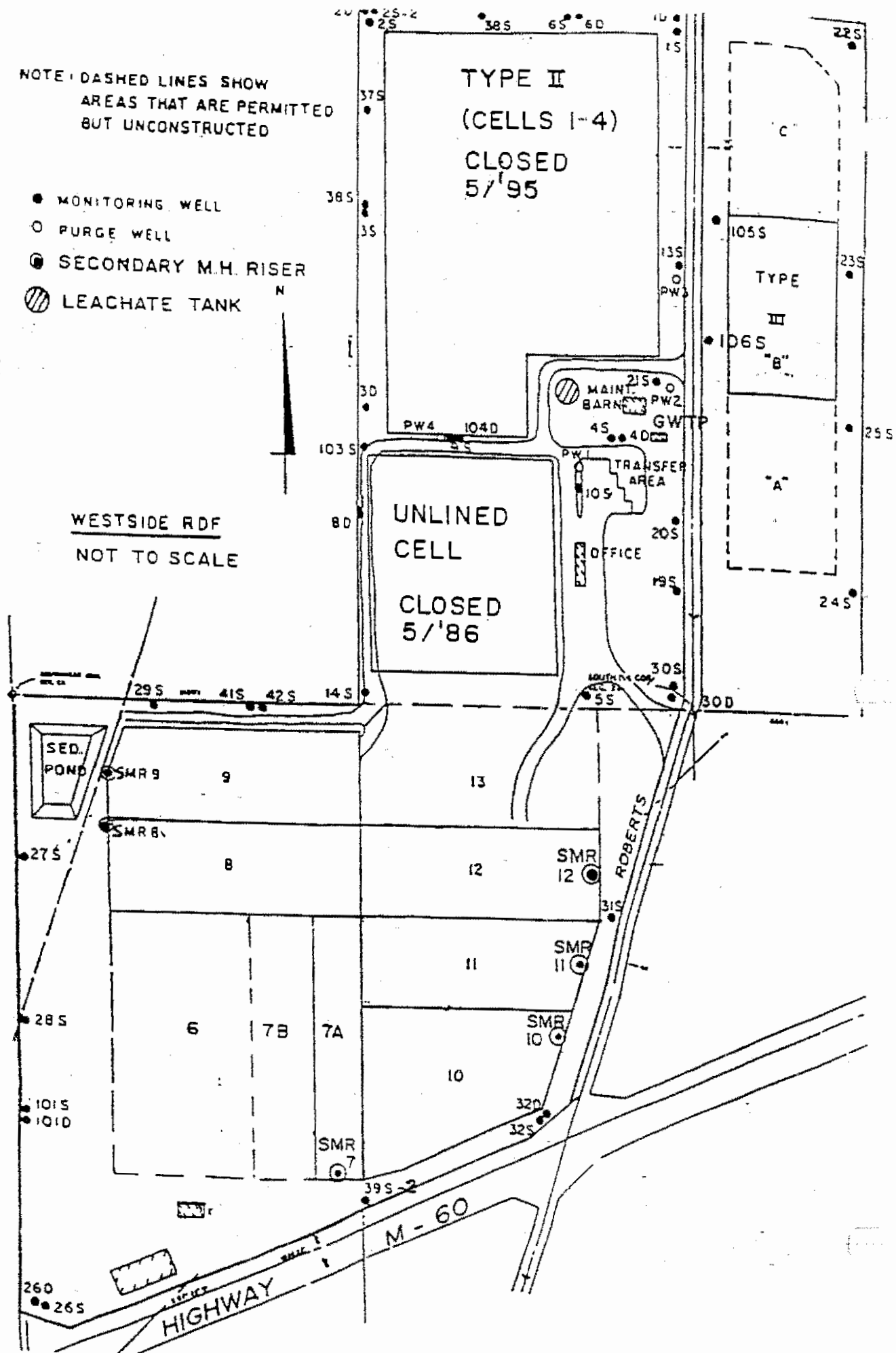
As you update your plan, please add as many of our landfills, as you wish, to your plan and notify our host counties of your intentions and request that they also include you in their plans.

NOTE: DASHED LINES SHOW
AREAS THAT ARE PERMITTED
BUT UNCONSTRUCTED

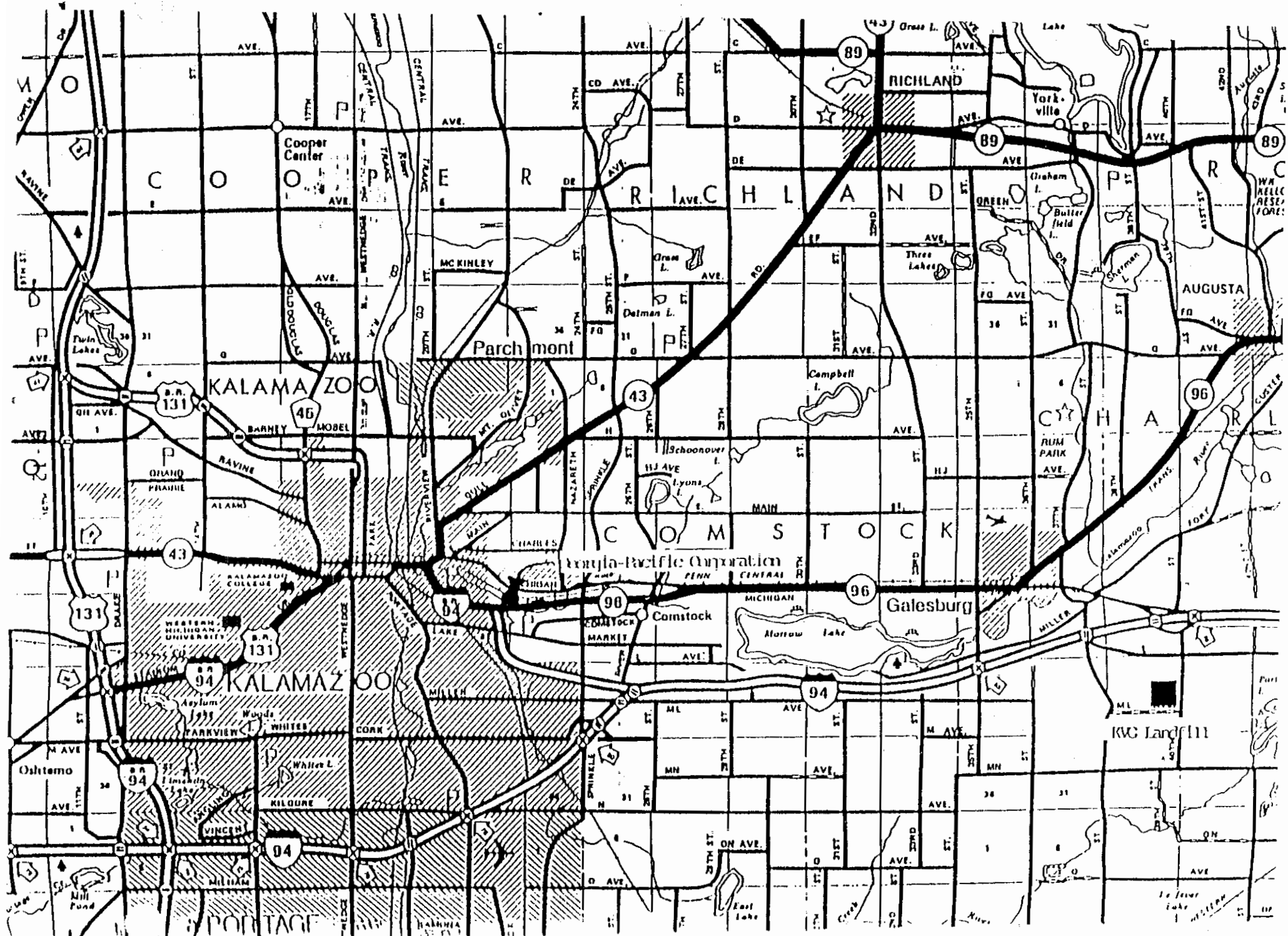
- MONITORING WELL
- PURGE WELL
- ⊙ SECONDARY M.H. RISER
- ⊗ LEACHATE TANK

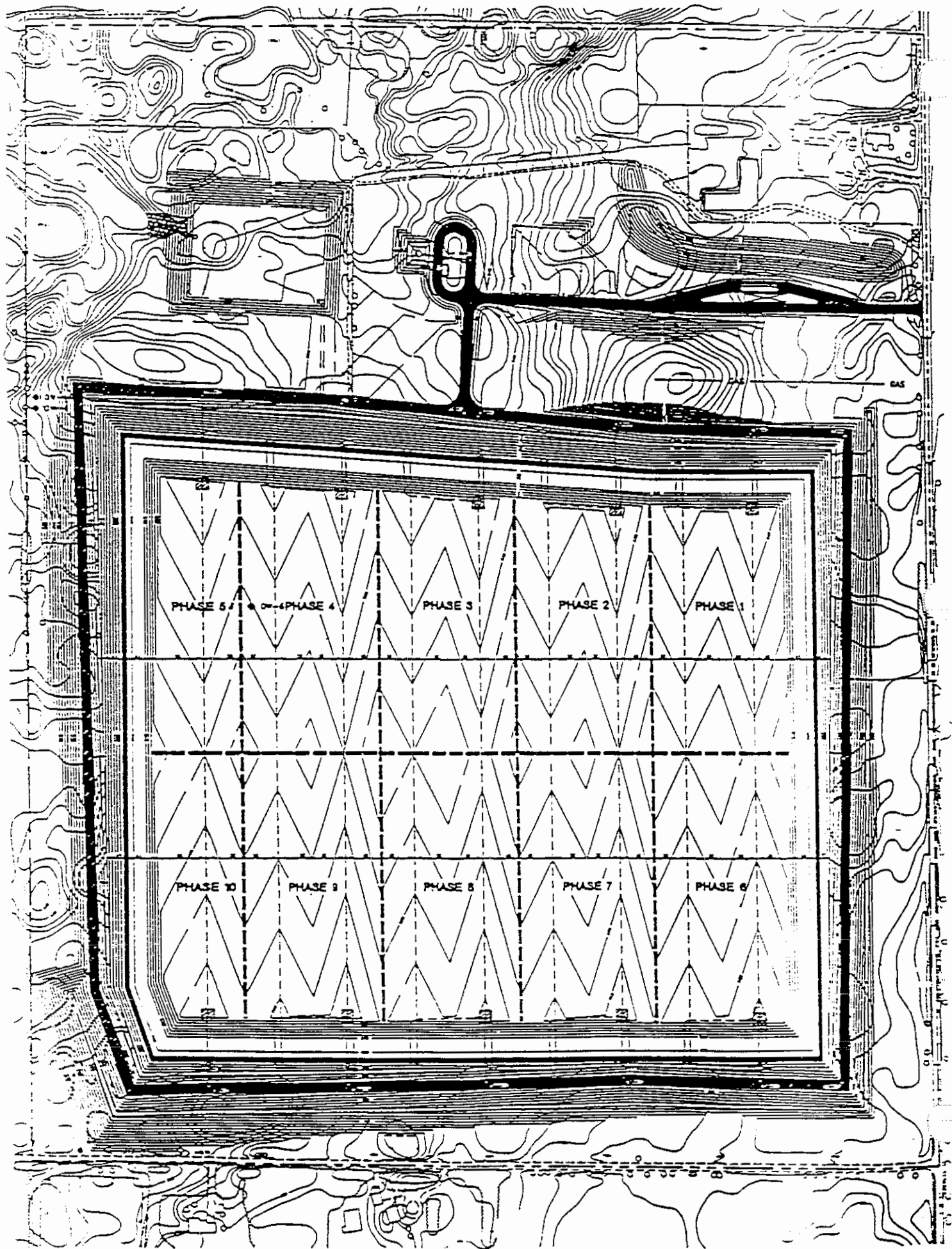
N

WESTSIDE RDF
NOT TO SCALE



WESTSIDE RDF







Liberty Environmentalists, Inc.

7900 South Meridian
Clark Lake, Michigan 49234
Phone: 787-1177

OCTOBER 05, 1998

CALHOUN COUNTY
SOLID WASTE PLANNING COMMITTEE
13300 15 MILE ROAD
MARSHALL, MI 49068

Liberty Environmentalists is requesting to be placed in your new solid waste plan update. Liberty Environmentalists has been involved in hauling waste from your county for thirteen years. We are a State licensed facility, located in Liberty Township, Jackson County.

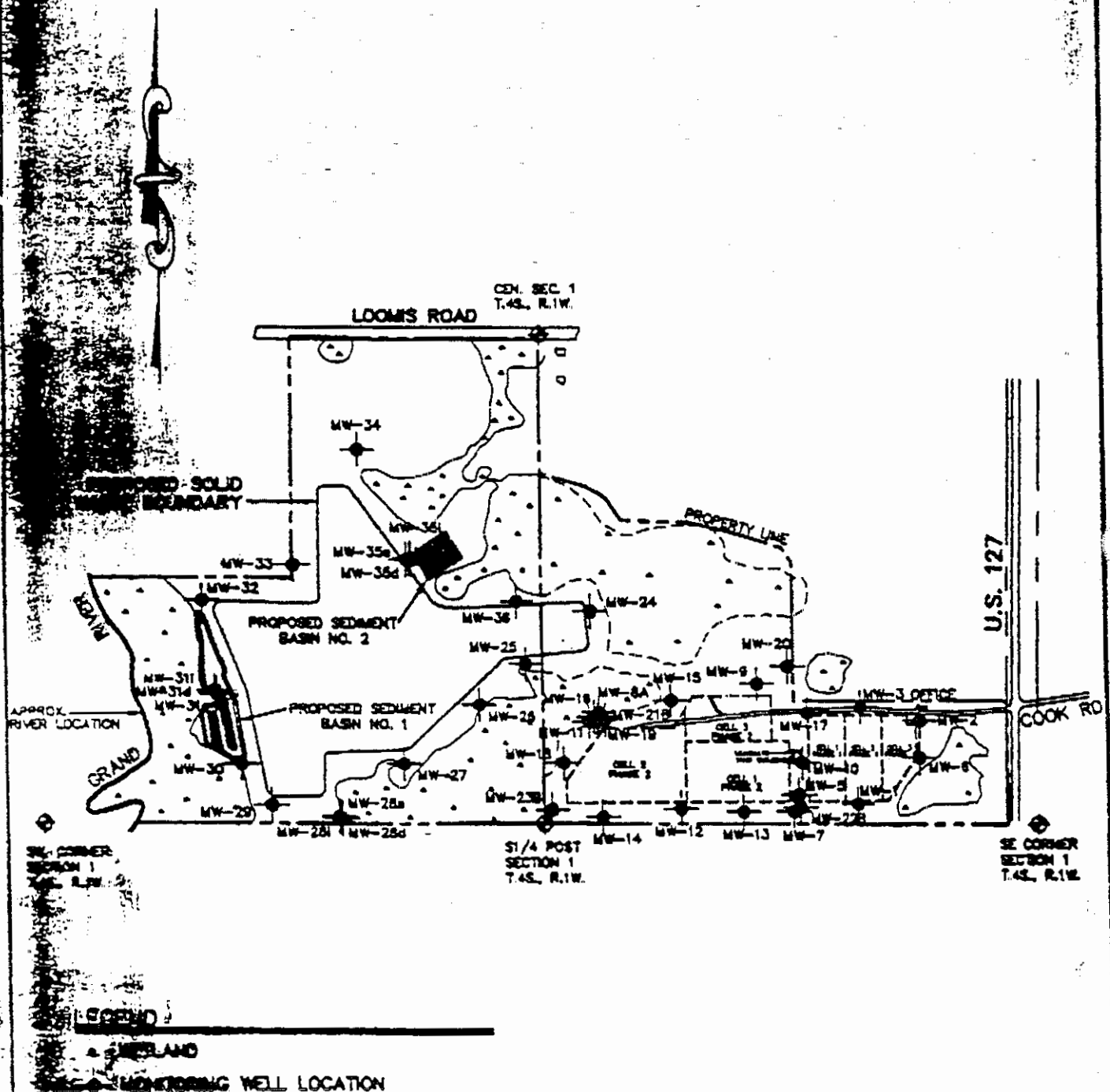
We at Liberty Environmentalists are also committed to recycling each and every load brought to our site. Each load is checked and inspected and all recycled material is removed. If you should have any questions, please feel free to call me at (517) 787-1177.

SINCERELY,

DAVID DUNIGAN

DD/ms

FACILITY SITE MAP LIBERTY ENVIRONMENTALISTS LANDFILL JACKSON, MICHIGAN



FOR LIBERTY ENVIRONMENTALISTS

DATE: FEBRUARY, 1998

SCALE: 1"=800'

DRAWN BY: MHJ

JOB NUMBER: 960016

Wightman Environmental, Inc.

4050 S. Pipestone Road, P.O. Box 85
Sodus, Michigan 49128



RECEIVED

NOV 30 1998

LIV. CTY. HEALTH DEPT.

November 9, 1998

Ms. Whitney Goodnoe
Calhoun County Recycling Coordinator
315 Green St.
Marshall, MI 49068

RE: Your County Solid Waste Plan Update - Explicitly Authorized Solid Waste Exports

Dear Ms. Goodnoe:

BFI would like to request that your Solid Waste Planning Committee include BFI's Cork Street Transfer Station located in the city of Kalamazoo in Kalamazoo County in your Plan Update. This will be important should your county wish, at some point in the future, to export waste to this facility for transfer to our Arbor Hills Landfill facilities.

BFI would be pleased to help your county to provide for its long term disposal needs. We look to provide any assistance we may offer to you as you move through this solid waste planning update process. We would also be happy to attend any scheduled meetings at which you might request BFI to be present, in order to discuss this request in more detail. I thank you for your attention to this request.

Sincerely,

A handwritten signature in black ink, appearing to read "Kathleen A. Klein".

Kathleen A. Klein
BFI Public Sector Representative

FACILITY SURVEY LIBERTY ENVIRONMENTALISTS LANDFILL JACKSON, MICHIGAN

PORTION OF THE SOUTH ONE-HALF OF SECTION 1, TOWN 4 SOUTH, RANGE 1 WEST, LIBERTY TOWNSHIP, JACKSON COUNTY, MICHIGAN BEING DESCRIBED AS: BEGINNING AT THE SOUTHEAST CORNER OF SAID SECTION 1; THENCE SOUTH 87° 00' WEST 3844.76 FEET ALONG THE SOUTH LINE OF SAID SECTION 1 TO THE SOUTH ONE-QUARTER POST OF SAID SECTION 1; THENCE SOUTH 87° 00' WEST 1046.22 FEET ALONG THE SOUTH LINE OF SAID SECTION 1 TO AN INTERMEDIATE TRANSVERSE LINE FOR THE GRAND RIVER; THENCE NORTH 17° 00' WEST 1394.88 FEET ALONG THE INTERMEDIATE TRANSVERSE LINE TO THE NORTH LINE OF THE SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1; THENCE NORTH 87° 00' EAST 916.12 FEET ALONG THE NORTH LINE OF THE SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1 TO THE SOUTHWEST CORNER OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1; THENCE NORTH 87° 00' EAST 1345.82 FEET ALONG THE WEST LINE OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1 TO THE EAST-NORTH ONE-QUARTER LINE; THENCE NORTH 87° 00' EAST 1804.88 FEET ALONG THE EAST-NORTH ONE-QUARTER LINE TO THE NORTH-NORTH ONE-QUARTER LINE; THENCE SOUTH 87° 00' WEST 707.87 FEET ALONG THE NORTH-NORTH ONE-QUARTER LINE TO THE SOUTH LINE OF THE GRAND RIVER; THENCE SOUTH 87° 00' WEST 1046.22 FEET ALONG THE SOUTH LINE OF THE GRAND RIVER TO THE CENTERLINE OF THE GRAND RIVER; THENCE SOUTH 87° 00' WEST 3844.76 FEET ALONG THE SOUTH LINE OF SAID SECTION 1 TO THE POINT OF BEGINNING.

BEING 72° 31' 13" EAST 3844.76 FEET DESCRIBED AS SOUTH 72° 31' 13" EAST 3844.76 FEET.

BEING 87° 00' WEST 1394.88 FEET DESCRIBED AS SOUTH 87° 00' WEST 1394.88 FEET.

BEING 87° 00' WEST 1046.22 FEET DESCRIBED AS SOUTH 87° 00' WEST 1046.22 FEET.

BEING 87° 00' WEST 1345.82 FEET DESCRIBED AS SOUTH 87° 00' WEST 1345.82 FEET.

BEING 87° 00' WEST 1804.88 FEET DESCRIBED AS SOUTH 87° 00' WEST 1804.88 FEET.

BEING 87° 00' WEST 707.87 FEET DESCRIBED AS SOUTH 87° 00' WEST 707.87 FEET.

BEING 87° 00' WEST 1046.22 FEET DESCRIBED AS SOUTH 87° 00' WEST 1046.22 FEET.

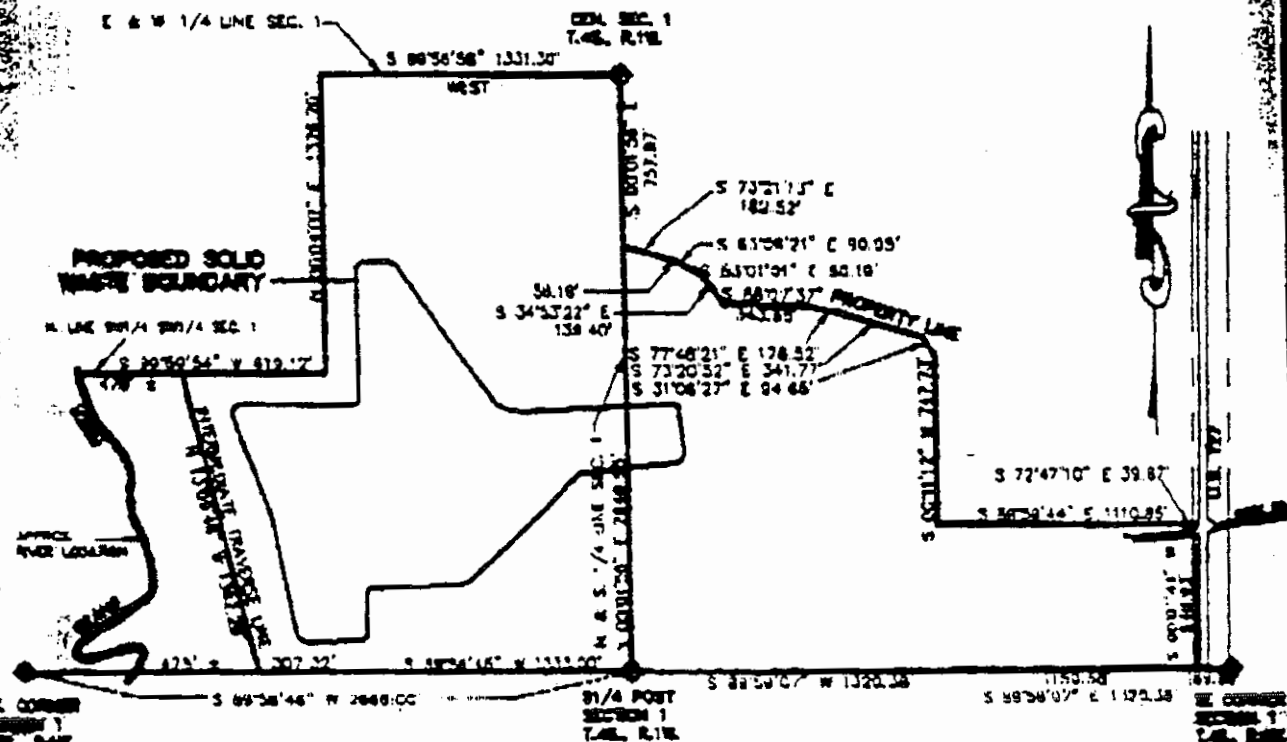
BEING 87° 00' WEST 3844.76 FEET TO THE EAST LINE OF THE WEST

ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1; THENCE SOUTH 87° 00' WEST 747.73 FEET ALONG THE EAST LINE OF THE WEST ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1 TO THE NORTH LINE OF THE SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1; THENCE SOUTH 87° 00' WEST 1114.88 FEET ALONG THE NORTH LINE OF THE SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1 TO THE CENTERLINE OF A VARIATION RIVER; THENCE SOUTH 72° 31' 13" EAST 2384.88 FEET ALONG THE CENTERLINE OF THE VARIATION RIVER TO THE EAST LINE OF SAID SECTION 1; THENCE SOUTH 87° 00' WEST 3844.76 FEET ALONG THE EAST LINE OF SAID SECTION 1 TO THE POINT OF BEGINNING. THE NORTH AND SOUTH LINES OF THE SOUTH ONE-HALF OF THE SOUTHWEST ONE-QUARTER OF SAID SECTION 1 EXTEND TO THE CENTERLINE OF THE GRAND RIVER.

CONTAINING 1804.88 ACRES TO THE INTERMEDIATE TRANSVERSE LINE AND 1704.88 ACRES MORE OR LESS TO THE GRAND RIVER.

SUBJECT TO A ROAD RIGHT-OF-WAY OVER THE NORTH 3844.76 FEET OF THE NORTHWEST ONE-QUARTER OF THE SOUTHWEST ONE-QUARTER OF SECTION 1 FOR LAMAR ROAD.

SUBJECT TO A ROAD RIGHT-OF-WAY FOR US-137 BEING DESCRIBED AS: BEGINNING AT THE SOUTHWEST CORNER OF SECTION 1; THENCE SOUTH 87° 00' WEST 1046.22 FEET ALONG THE SOUTH LINE OF SAID SECTION 1; THENCE NORTH 87° 00' EAST 3844.76 FEET ALONG THE NORTH LINE OF SAID SECTION 1; THENCE SOUTH 87° 00' WEST 1046.22 FEET ALONG THE SOUTH LINE OF SAID SECTION 1 TO THE POINT OF BEGINNING.



FOR LIBERTY ENVIRONMENTALISTS
DATE: FEBRUARY, 1988
SCALE: 1"=500'
DRAWN BY: LEM
JOB NUMBER: 880016

Wightman Environmental, Inc.
4060 S. Pipestone Road, P.O. Box 96
Jodus, Michigan 49128



DEPARTMENT OF PLANNING & COMMUNITY DEVELOPMENT

201 WEST KALAMAZOO AVENUE • KALAMAZOO, MICHIGAN 49001
PHONE (616) 384-8112 FAX (616) 383-8888

January 8, 1998

Roger Andrews
c/o Calhoun County Solid Waste Planning Committee
Calhoun County Building
315 West Green Street
Marshall, Michigan 49068

Dear Calhoun County Solid Waste Planning Committee:

As you are aware, each County in the State of Michigan is currently in the process of preparing an update to its respective Solid Waste Management Plan. A key component of the plan updates is the accommodation of a County's solid waste for a five and ten-year period. With the exception of a Type III Sanitary Landfill in Kalamazoo County which is utilized for the deposit of paper mill residuals only, our County currently exports all of its Type II and general Type III solid waste to sanitary landfill facilities in adjoining and/or nearby Counties.

You should be apprised that our County currently generates approximately 558,552 tons of solid waste per year. An estimated 204,000 tons of the waste generated is currently being diverted from landfill disposal via public and private waste reduction efforts. The County of Kalamazoo also operates a household hazardous waste collection program which aims to minimize the hazardous content of this remaining portion of the waste stream which ultimately must be landfilled. It is our intent to maintain and increase our current waste reduction efforts.

The remaining 354,607 tons of waste is landfilled. Approximately one-third or 113,850 tons per year of the landfilled waste is paper mill residuals which will be landfilled within Kalamazoo County beginning in 1998. **Therefore, the net amount of solid waste from Kalamazoo County that requires final disposal is approximately 240,757 tons per year or 660 tons per day.**

Due to absence of any sanitary landfill facilities in our County to accommodate the remaining portion of our solid waste stream and in order to fulfill the requirements of the Solid Waste Management Plan Update process, specifically Part 115 of the Natural



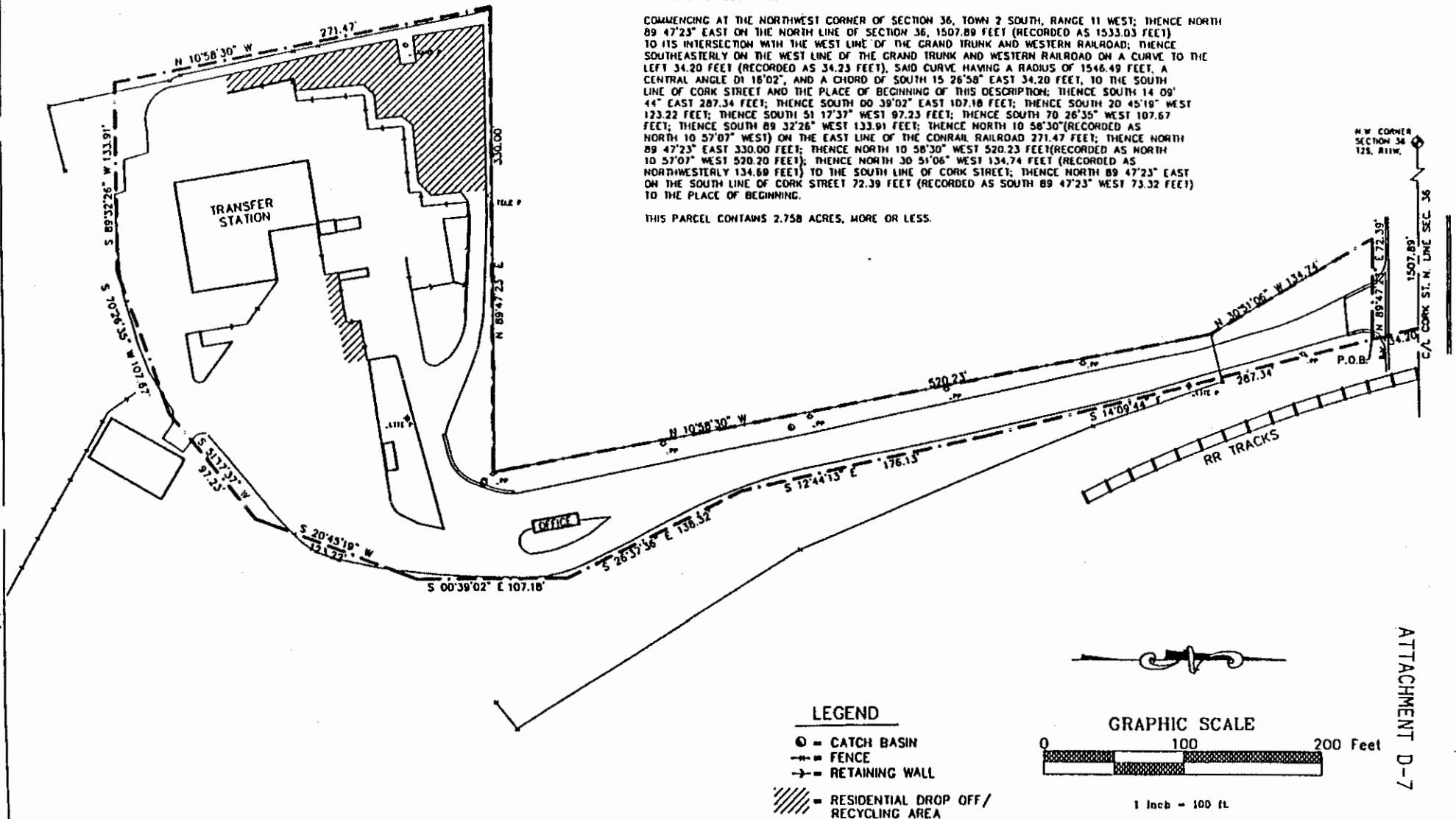
CORK STREET TRANSFER STATION

DESCRIPTION OF PROPERTY

A PARCEL OF LAND IN SECTION 36, TOWN 2 SOUTH, RANGE 11 WEST; BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SECTION 36, TOWN 2 SOUTH, RANGE 11 WEST; THENCE NORTH 89°47'23" EAST ON THE NORTH LINE OF SECTION 36, 1507.89 FEET (RECORDED AS 1533.03 FEET) TO ITS INTERSECTION WITH THE WEST LINE OF THE GRAND TRUNK AND WESTERN RAILROAD; THENCE SOUTHEASTERLY ON THE WEST LINE OF THE GRAND TRUNK AND WESTERN RAILROAD ON A CURVE TO THE LEFT 34.20 FEET (RECORDED AS 34.23 FEET), SAID CURVE HAVING A RADIUS OF 1546.49 FEET, A CENTRAL ANGLE D1 16°02', AND A CHORD OF SOUTH 15°26'58" EAST 34.20 FEET, TO THE SOUTH LINE OF CORK STREET AND THE PLACE OF BEGINNING OF THIS DESCRIPTION; THENCE SOUTH 14°09'44" EAST 287.34 FEET; THENCE SOUTH 00°39'02" EAST 107.10 FEET; THENCE SOUTH 20°45'19" WEST 123.22 FEET; THENCE SOUTH 51°17'37" WEST 97.23 FEET; THENCE SOUTH 70°26'35" WEST 107.67 FEET; THENCE SOUTH 89°32'26" WEST 133.91 FEET; THENCE NORTH 10°58'30" (RECORDED AS NORTH 10°57'07" WEST) ON THE EAST LINE OF THE CONRAIL RAILROAD 271.47 FEET; THENCE NORTH 89°47'23" EAST 330.00 FEET; THENCE NORTH 10°58'30" WEST 520.23 FEET (RECORDED AS NORTH 10°57'07" WEST 520.20 FEET); THENCE NORTH 30°51'06" WEST 134.74 FEET (RECORDED AS NORTHWESTERLY 134.69 FEET) TO THE SOUTH LINE OF CORK STREET; THENCE NORTH 89°47'23" EAST ON THE SOUTH LINE OF CORK STREET 72.39 FEET (RECORDED AS SOUTH 89°47'23" WEST 73.32 FEET) TO THE PLACE OF BEGINNING.

THIS PARCEL CONTAINS 2.758 ACRES, MORE OR LESS.



Resources and Environmental Protection Act, 1994 PA 451, as amended, we are requesting that the volume of our solid waste stream be included in your Solid Waste Management Plan Update. Specifically, we are requesting that Kalamazoo County and its 240,757 tons per year and 660 tons per day be identified as an "importing" County for "primary" disposal for both the short (5 year) and long-term (10 year) planning period in your Plan Update. It is our understanding that the existing Type II sanitary landfill(s) in your County can accommodate our total volume of solid waste for the ten year term.

It is our intent to continue to explore additional sanitary landfill facilities and host counties for "contingency" disposal of our waste stream in the event of closures and/or emergencies of the facilities within southwestern Michigan.

This request primarily represents continuation of existing solid waste import/export patterns. For planning purposes, it is mandatory for both the importing and exporting counties to recognize and to validate/invalidate such patterns in an effort to coordinate the plan update process.

In order that each of our respective Counties may continue to fulfill the requirements of the Plan Update in a timely fashion, we would request a response in a formal or informal manner by March 1, 1998, if possible. We would be most happy to meet with you and/or representatives of your County to discuss our request further and answer any questions.

Please feel free to contact me at your earliest convenience at (616) 384-8114.

Thank you for your attention in this matter.

Sincerely,



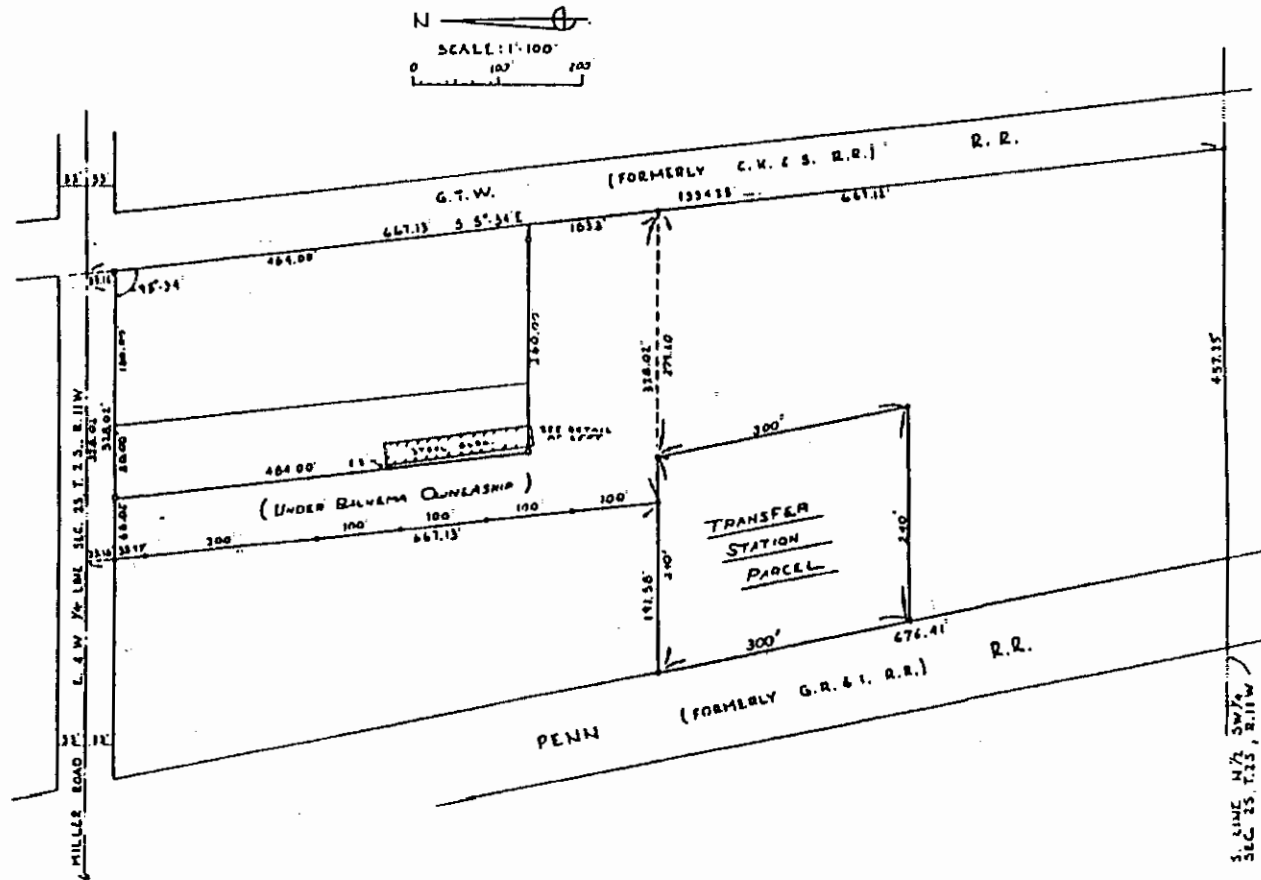
Dean J. Holub

Assistant County Administrator for Economic & Community Development

cc: C&C Landfill

TRANSFER STATION PARCEL DESCRIPTION

Land located in the South half of the Northwest quarter of the Southwest quarter of Section 25, Town 2 South, Range 31 West were particularly described as follows: Commencing at the intersection of the East and West quarter line of Section 25 with the West quarter line of the Grand Trunk Western Railroad; thence South 5°-34' East along the West quarter line of said right-of-way, 467.13 feet to the South line of the North half of the Northwest quarter of the Southwest quarter of said Section 25; thence West along said South line, 230.00 feet to the place of beginning; thence South 9°-48' East parallel to the East line of the Conrail right-of-way, 300 feet; thence westerly parallel to said South line, 210 feet; thence Northerly along the East line of the Conrail right-of-way, 300 feet to said South line; thence easterly thence 210 feet to the place of beginning; said description containing 3.45 acres, more or less, subject to all conditions, limitations, restrictions and easements of record.



SITE SURVEY

INFORMATION BASED ON SURVEY PREPARED BY
WILKINS & WHEATON ENGINEERING CO.

ADD 844 SCALE 1/16" = 1' 0" 1/16" = 1' 0" 1/16" = 1' 0"
REVISED TO SHOW ENCROACHMENT 1-11-50 Z.E.B.

NOTE: IRONS AT ALL POINTS MARKED (•)



ARCHITECTS
ENGINEERS
PLANNERS
SURVEYORS

GOVE ASSOCIATES, INC.

1601 Portage Street
Kalamazoo, Michigan
(616) 385-0011

SCALE: 1" = 100.0'	DATE
DRAWN BY: GARY G.	3/31/83
CHECKED BY: BILL O	3/31/83
APPROVED BY: P.M.	1/11/83

MILLER ROAD TRANSFER STATION
CITY OF KALAMAZOO
KALAMAZOO CO., MICHIGAN
PARCEL DESCRIPTION

SHEET
OF
5
5

PROJECT
NUMBER
B-9618-1



April 10, 1998

Mr Roger Andrews
Calhoun County Department of Planning
and Development
County Building
315 West Green Street
Marshall, MI 49068

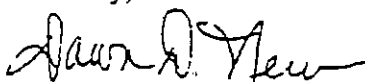
Re: Inclusion into Solid Waste Plan

Dear Mr. Andrews:

City Environmental, Inc. (CEI) a leader in the treatment and disposal of hazardous waste is hereby requesting the opportunity to be included in your county's solid waste plan. Beginning in 1989, CEI has been actively involved with household hazardous waste programs (H H W) across the state. Over 1,250 collections performed to date, including the combined collections from our service division in Florida. We are proud to be able to offer your community alternatives to taking household hazardous wastes directly to a landfill.

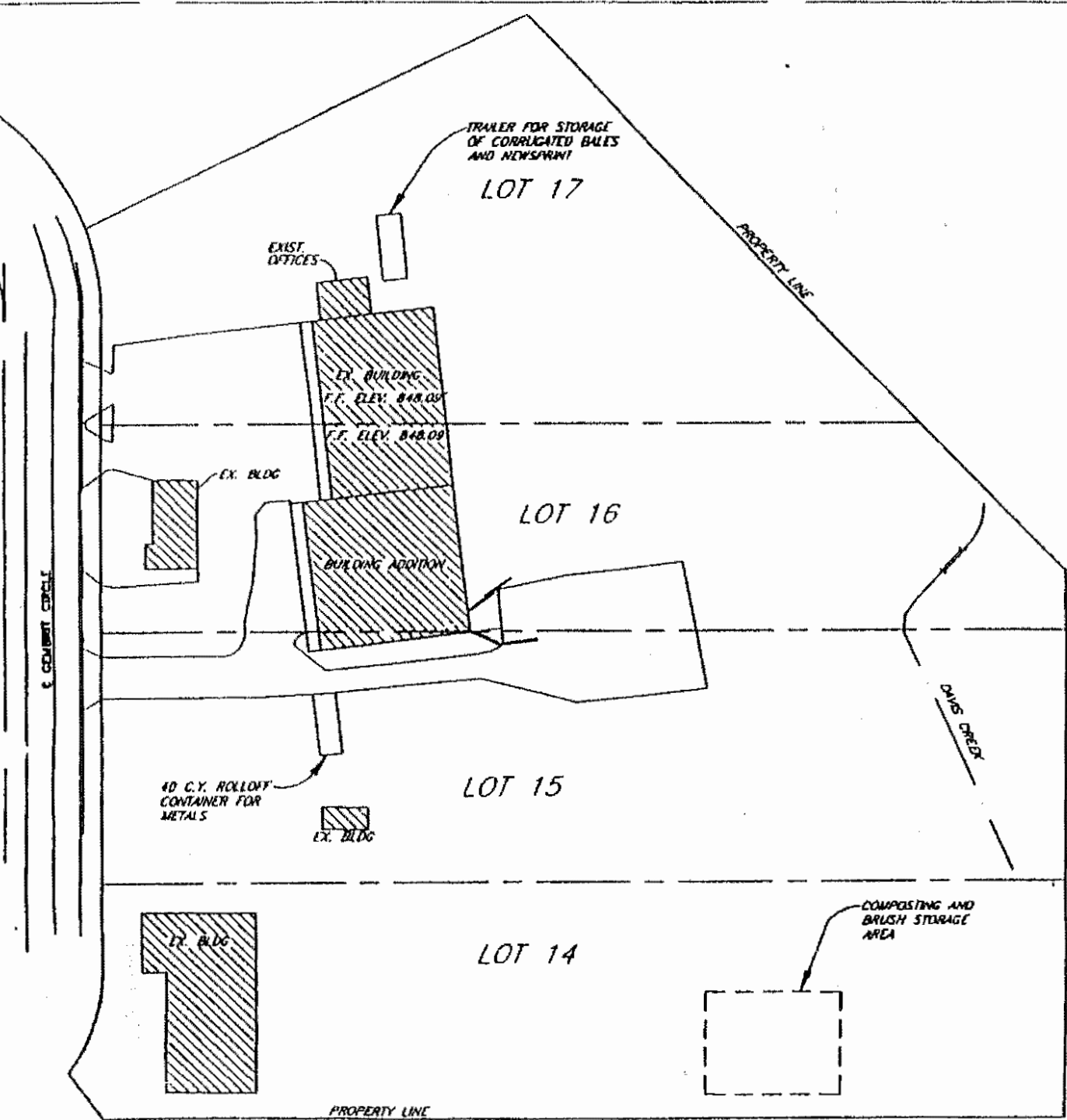
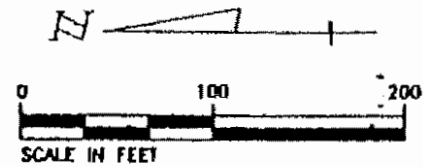
We offer a service that allows for household hazardous materials including such items as bleach, ammonia, used oil, antifreeze, poisons, herbicides, and many other wastes, to be treated properly at a licensed and permitted hazardous treatment facility located here in the State of Michigan. The immediate benefits of this service are that it reduces the volume going into the landfills and takes most of the dangerous items out of household waste and diverts them for proper treatment. The long term benefits are that not only is it safer for the environment but also safer for the waste handlers who come across it on a daily basis, year after year. We are asking that your county consider City's H H W programs as a viable alternative to landfilling materials as you would view composting or recycling as an alternative. Thank-you for taking the time and consideration to review our request. If you would like to learn more about our programs or have any questions regarding our facility, please contact me at (313) 923-0080, ext. 179 or Mr. Rod Nacker at ext. 139.

Sincerely,



Dawn D. New
Special Waste Representative





ATTACHMENT D-9

ROYAL HOLDINGS, INC.
ACT 641
SITE PLAN

5/973052MAP

ALLEGAN COUNTY HEALTH DEPARTMENT

2233 - 33rd St., Allegan, MI. 49010

Office Administration
(616) 673-5411
Personal Health Services
673-5413



Resource Recovery
673-5411
Environmental Health
673-5415

██████████
Medical Director

Karl Zimmerman
Administrative Health Officer

May 29, 1998

Roger Andrews
Calhoun County Building
315 West Green St.
Marshall, MI 49068

Dear Roger,

I have examined numbers provided by area waste haulers, as well as information contained in the Landfill Receipt Reports, and attempted to calculate Allegan's landfill capacity needs for the next 10 year planning period. Based on current disposal patterns, I would expect Calhoun County to continue as a primary importer of Allegan's waste, providing its plan endorses the practice. While our plan will authorize export (of up to 100% of total waste) to any county which approves such import in its plan, we are also including specific volume projections to indicate that our capacity requirements are covered. The projections for Calhoun County are presented as a range, to reflect potentially wide fluctuations due to changes in waste flow. The tons per day totals are based on 365 days per year, and the 5th and 10th year benchmarks were set according to MDEQ's suggestion that our planning period begin in January 1999. I have not attempted to differentiate between municipal solid waste and special waste, so totals reflect both categories. Also, the range is based on our documented discard rate, not the total waste generation rate.

	<u>1997 (current)</u>	<u>2003 (5 yrs.)</u>	<u>2008 (10 yrs.)</u>
Allegan Generation	252 TPD 91,980 TPY	279 TPD 101,835 TPY	303 TPD 110,595 TPY
Allegan Discards	181 TPD 66,065 TPY	190 TPD 69,350 TPY	193 TPD 70,445 TPY
Exports to Calhoun Co.	30-50 TPD 10,950-18,250 TPY	31-50 TPD 11,315-18,250 TPY	31-50 TPD 11,315-18,250 TPY

As you know, state law stipulates that any county without ten years of guaranteed disposal capacity must complete an annual review and certification for the state. We would like to be able to demonstrate sufficient capacity to avoid this process, and Calhoun's willingness to include our long term capacity needs in its solid waste plan would help us accomplish that.



Calhoun County
Office of the County Administrator
"Building A Better County Through Responsive Leadership"

115 East Green Street
Jenkins, ME 04942

Eric Van Houghton
Allied Waste
7471 Wilshire Drive
Jenkins, ME 04922

Dear Mr. Van Houghton:

Per our conversation on the afternoon of Monday, June 8th, 1998, attached please find a sample letter and survey which were sent to your company several months ago.

Please take a moment to fill out the information requested and phone or fax this back to the Calhoun County Administrators Office.

Thank you.

Victoria Selby
Administrative Assistant

Please: (616) 781-0973
Fax: (616) 781-0140

TO: VICTORIA SELBY
FROM: ERIC VAN HOUTEN

WE CURRENTLY DO NOT ACCEPT OR COLLECT
WASTE IN THE CALHOUN COUNTY AREA. HOWEVER
SHOULD WE DO ANY ACQUISITIONS IN THE AREA,
WE WOULD BE INTERESTED IN YOU INCLUDING OUR
OTTAWA COUNTY FARMS LANDFILL AND CENTRAL LANDFILL
IN YOUR GRI PLAN.

SOLID WASTE DIVISION

Waste-to-Energy Facility
District Heating and
Cooling Operations
Landfill Operations
Recycling
Resource Recovery

WATER AND SEWER DIVISION

Financing
Construction
Operation



Board of Public Works

JERRY O. KOOIMAN
Chairman

ROGER G. LANING
Vice Chair

BEVERLY R. REKENY
Secretary

CHERRY H. JACOBUS
KATHERINE KUHN

PAUL McGUIRE
DAVID H. MORREN

CURT A. KEMPPAINEN
Director

April 9, 1998

Mr. Roger Andrews
Solid Waste Coordinator
Calhoun County
315 W. Green Street
Marshall, MI 49068

Re: Solid Waste Plan Amendment

Dear Mr. Andrews:

I have enclosed the facility description for the South Kent County Landfill as you requested in your March 12, 1998 letter. I suggest that both plans include 50 tons per day in the new plan for importation of type II solid waste originating in Calhoun County to the South Kent Landfill. Kent County does not anticipate exporting waste to Calhoun County. We request that Kent County be included on the list as a proposed disposal facility in the updated plan.

If you have further questions regarding this matter feel free to call me.

Best regards,

KENT COUNTY DEPARTMENT OF PUBLIC WORKS

Douglas G. Wood
Deputy Director

c: Dennis Kmiecik
Richard Butler, VRSH

S:\SWO\SWMA\PLANS\CALHOUN2.WPD

EATON COUNTY DEPARTMENT OF RESOURCE RECOVERY
1045 INDEPENDENCE BLVD
CHARLOTTE, MI 48813



May 29, 1998

Mr. Roger Andrews
Calhoun County
315 West Green St
Marshall, MI 49068

Dear Mr. Andrews:

In response to your letter dated May 18, 1998, Eaton County is interested in being included in Calhoun County's Solid Waste Management Plan Update. This letter can be considered explicit authorization that flow of solid waste between Eaton and Calhoun County can occur for the 10 year Plan Update period. I am considering the letter you sent as authorization from Calhoun County and will be including it in the Plan Update.

At the present time, Eaton County does not have a disposal facility within its borders. However, the County is willing to list Calhoun County as having import authorization for any future facilities that are sited in Eaton County. As with your current consideration of allowing 100% import/export between counties, Eaton County will authorize 100% import/export with any future sited facilities.

With regards to the additional information you requested, I have attached copies of the completed Data Base sections of the 1998 Eaton County Solid Waste Management Plan Update pertaining to demographic and solid waste generation estimates. I have also included a section regarding disposal areas that indicates the estimated percentage of solid waste being received at the C & C Landfill in Calhoun County. While this is obviously subject to change, it may provide insight into Eaton County's disposal patterns for your planning purposes.

If you have any questions or concerns regarding Eaton County's Solid Waste Management Plan Update, please do not hesitate to contact me at (517) 543-7500 x627, or via E-mail at mhill@co.eaton.mi.us. I would also appreciate that you direct any future correspondence to my office rather than the Community Development Director's office, as I am the Designated Planning Agency for Eaton County. Thank you very much.

Sincerely,

Marc A. Hill
Resource Recovery Coordinator

Cass County Board of Commissioners



To: Designated Solid Waste Planning Agency Representatives for:
Berrien, St. Joseph, Branch, Hillsdale, Lenawee, Monroe, Wayne,
Washtenaw, Jackson, [REDACTED] Kalamazoo, Van Buren, Allegan,
Barry, Eaton, Ingham, Livingston, Oakland, Shiawassee, Clinton, Ionia, Kent,
Ottawa, Gratiot, Montcalm, Muskegon, Oceana, Newaygo, Mecosta, Isabella

Date: July 29, 1998

Re: Solid Waste Management Plan Update Import/Export Arrangements

Courthouse
Cassopolis, Michigan 49031
Phone (616) 445-4420
Fax (616) 445-8978
Tax I.D. 38-6004839

The Cass County Solid Waste Planning Committee has identified 30 counties in Michigan as possible candidates for import/export authorization of solid waste. Cass County would like to list your county in our plan as an importer and exporter of solid waste. Cass County is requesting that your county plan update authorizes Cass County for 100 percent solid waste import and export.

Exportation of Cass County Solid Waste

Cass County will authorize the exportation of up to 100 percent of the Cass County solid waste stream to any of the counties listed above whose Solid Waste Management Plan specifically authorizes the acceptance of Cass County's solid waste.

Importation of Out-of-County Solid Waste

Currently, Cass County does not have any disposal areas within its borders. However, Cass County will list your county as a possible future importer of solid waste if a facility is ever sited within the County.

The Michigan Department of Environmental Quality requires that a letter of authorization for import and export of solid waste is included in the Plan Update. If your county decides to include Cass County as an importer and exporter of solid waste, please send a letter stating the authorization and any stipulations or conditions that may apply. Cass County would also like facility descriptions for each Type II and Type III landfill, Type A and Type B transfer station, incinerator, and waste-to-energy facility operating within your county.

To be able to complete the draft plan update, a prompt response letter would be greatly appreciated. Please direct all correspondence to the address below. If you have any questions or would like to discuss this matter in more detail, please call me at (616)925-1137 or e-mail swmicomm@cpuinc.net.

Sincerely,

Marcy Hamilton

Marcy Hamilton

Southwestern Michigan Commission

185 E. Main Street, Suite 701

Benton Harbor, MI 49022 fax (616) 925-0288

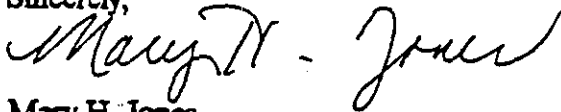
C:\MYDOCS\CASS\SWMP\IMPORT.WPD

Therefore, I am requesting that Calhoun County consider accepting 30-50 TPD of Allegan County waste for both the present and in 10 years. (Discard volumes increase only slightly with population growth, because of modest expansions planned for Allegan County's diversion efforts.)

I am still researching information to complete facility descriptions for our transfer stations (all type B, except for Lakeshore Disposal in Hamilton) and will send those at a later date.

If you have any questions about this request or the waste volumes listed, please don't hesitate to call.

Sincerely,



Mary H. Jones
Solid Waste/Recycling Coordinator

MHI/bjw

cc: Kathleen Klein, BFI

SOLID WASTE DIVISION
Waste-to-Energy Facility
District Heating and
Cooling Operations
Landfill Operations
Recycling
Resource Recovery

WATER AND SEWER DIVISION
Planning
Construction
Operation



Board of Public Works

JERRY O. KOOIMAN
Chairman
ROGER G. LANINGA
Vice Chairman
BEVERLY R. REKENY
Secretary
CHERRY H. JACOBUS
KATHERINE KUHN
PAUL McGUIRE
DAVID H. MORREN
CURT A. KEMPPAINEN
Director

September 1, 1998

Roger Andrews
Calhoun County Administrator's Office
315 West Green Street
Marshall, MI 49068

Re: Solid Waste Management Plan Committee

Dear Mr. Andrews:

In preparing its 1998 Part 115 Solid Waste Management Plan Update and as part of the County's integrated solid waste system, Kent County is recognizing 14 counties in Michigan for import and/or export authorization. Exhibit A (attached) describes Kent County's intended import and/or export authorizations for each county recognized in their Plan limited to the conditions as stated. Also included are Tables 1-A and 2-A from the updated Plan.

In order to ensure that your County is included in our Plan, and that our needs are likewise included in your Plan, we would appreciate receiving written notice of your import and/or export intentions by October 5, 1998.

Thank you for your attention to this matter. If you have any questions or concerns, please contact me.

Best regards,

KENT COUNTY DEPARTMENT OF PUBLIC WORKS

Douglas G. Wood
Deputy Director



BRANCH COUNTY COURTHOUSE

31 DIVISION STREET • COLDWATER • MICHIGAN • 49036
TELEPHONE (517) 279-4301

RECEIVED

8-28-1998

CALHOUN COUNTY
BOARD OF COMMISSIONERS

FAX (517) 278-4130

RECEIVED

August 25, 1998

SEP 1 1998

LIV. CTY. HEALTH DEPT.

Calhoun County Administrator's Office
County Building
315 W. Green Street
Marshall, MI 49068

Re: Import/Export Agreement for Solid Waste Management

Dear County Administrator:

Branch County hereby requests that Calhoun County include Branch County as an approved importing county in its 1998 Solid Waste Management Plan (SWMP) update. In turn, Branch County will list Calhoun County as an approved importing county in its SWMP. However, please be advised that Branch County does not currently contain a solid waste disposal facility within its borders. Branch County has opted to require a written agreement for other counties to be included in its SWMP. Please contact Ken Strong at (517) 279-4310 at your earliest convenience to indicate Calhoun County's willingness to proceed as requested, or if a written agreement will be required. We appreciate your prompt response in this regard.

Yours very truly,

BRANCH COUNTY COURTHOUSE

A handwritten signature in cursive script, appearing to read "Charles L. Lauer".

Board of Commissioners

cc: Ken Strong, Branch County Drain Commissioner
Jeff Eves, American Hydrogeology Corporation

Calculations: Projected Recovery Worksheet

Curbside Collection

City of Battle Creek 1997:

Total Recovery: 5,984 yd³
Population: 53,415
 Estimated Recovery Per Person: .112 yd³

City of Springfield 1997:

Population: 5,666
Recovery Per Person: .112 yd³
 Estimated Recovery: 635 yd³

Village of Tekonsha 1997

Population: 748
Recovery Per Person: .112 yd³
 Estimated Recovery: 84 yd³

Subscription Based
 and Multi-Family Recycling:

Population (Bedford, Emmett,
 & Pennfield Townships and
 Cities of Albion & Marshall) 49021
Recovery Per Person: .112 yd³
 Estimated Recovery: 5,490 yd³

**Total Curbside
 Estimated Recovery: 12,193 yd³**

Drop-Off Recycling

City of Battle Creek:

Total Material Recovered: 1,801 yd³

Drop-Off Centers:

County Drop-Off: 207 Emptied
 Emmett Township: 16 Emptied
Other: 4 Emptied
 Total # Box Emptied: 227

Box Change-Outs: 227
Drop-Off Boxes: 20 yd³
 Drop-Off Estimated Recovery: 4,540 yd³

**Total Drop-Off
 Estimated Recovery: 4,975 yd³**

Commercial/ Industrial

Waste Generated: 127,676 yd³
Estimated Potential Recovery: .15
**Total Commercial/ Industrial
 Estimated Recovery: 19,151 yd³**

TOTAL: 36,319 yd³

EPA Estimate Recovery: 1 lb. per person
Population: 142,900
 Total Estimated Recovery: 234,714 lbs.
 OR 78,238 yd³

Waste Composition - Recycling Worksheet

Material	Waste Composition (Curbside Recycling)	Total Curbside Estimated Recovery:	Waste Composition (Drop-Off Recycling)	Total Drop-Off Estimated Recovery:	Waste Composition (Com./ Ind.)	Total Commercial Estimated Recovery	Total
Residential Mixed Paper: Office Paper, Newspaper, & Magazines:	58%	7,072	24%	1,194	-	-	8,266
Poly Foam:	17%	2,073	8%	398	20%	3,830	3,830
Glass:	14%	1,707	17%	846	2%	383	2,854
Tin/ Metal Cans:	6%	732	5%	249	-	383	2,936
Plastics:	6%	732	2%	100	7%	1,341	981
Scrap Metals:	-	-	24%	1,194	6%	1,149	2,173
Corrugated:	-	-	21%	1,045	32%	6,128	2,343
Food Waste:	-	-	-	-	8%	1,532	7,173
Wood Waste:	-	-	-	-	6%	1,149	1,532
Bottle Bill:	-	2,854	-	-	-	1,149	1,149
Other:	-	-	-	-	1%	228	2,854
Total Estimated Recovery		12,316 yd ³		5,026 yd ³		19,151 yd ³	36,319 yd ³

Material Recovery	Volume Recycling	Volume Yard Waste	Yard Waste Estimated Recovery	Yard Waste Estimated Other Diversion
78,238 yd ³	36,319 yd ³	41,919 yd ³	37,727 yd ³	4,192 yd ³

Total Projected Waste Diversion

Recycling:	36,319 yd ³
Yard Waste:	41,919 yd ³
1997 Estimated Diversion	78,238 yd ³

Curbside & Drop-Off recycling waste compositions are based on reports provided by the City of Battle Creek. Commercial and Industrial waste composition is as reported in Table III-4.

**Report of Solid Waste Landfilled
1996, 1997, & 1998 (continued)**

1998 Reported Volumes

C&C:	Type II	259,279 yd ³
	Type III	74,176 yd ³
Liberty:	Type III	1,000 yd ³
Oakland Heights:	Type II	384 yd ³
Orchard Hills:	Type II	133 yd ³
Pitsch:	Type II	28 yd ³
Hastings:	Type II	34,229 yd ³
Westside:	Type II	446,528 yd ³
Total:	Type II	740,581 yd ³
	Type III	75,176 yd ³
	Type II/III	815,757 yd ³

3 Year Average (Type II/III) = 686,834 yd³

Report of Solid Waste Landfilled 1996, 1997, & 1998

Source: MDEQ, Waste Management Division

1996 Reported Volumes

C&C:	Type II	252,775 yd ³
	Type III	26,598 yd ³
Liberty:	Type III	900 yd ³
Westside:	Type II	354,682 yd ³
1996 Totals:	Type II	607,457 yd ³
	Type III	27,498 yd ³
	Type II/III	634,955 yd ³

1997 Reported Volumes

C&C:	Type II	261,727 yd ³
	Type III	24,344 yd ³
Hastings:	Type II	17,349 yd ³
Liberty:	Type III	4,000 yd ³
McGill:	Type II	1,869 yd ³
Venice Pk:	Type II	7 yd ³
Wayne Disposal:	Type II	130 yd ³
Westside:	Type II	300,363 yd ³
Total:	Type II	581,445 yd ³
	Type III	28,344 yd ³
	Type II/III	609,789 yd ³

APPENDIX C

ARTICLE VIII: AMENDMENTS

Section 1. The bylaws may be amended by a majority of the members designated and serving on the Committee. Any proposed change in the bylaws shall be presented to the Committee of the Whole 30 days prior to consideration.

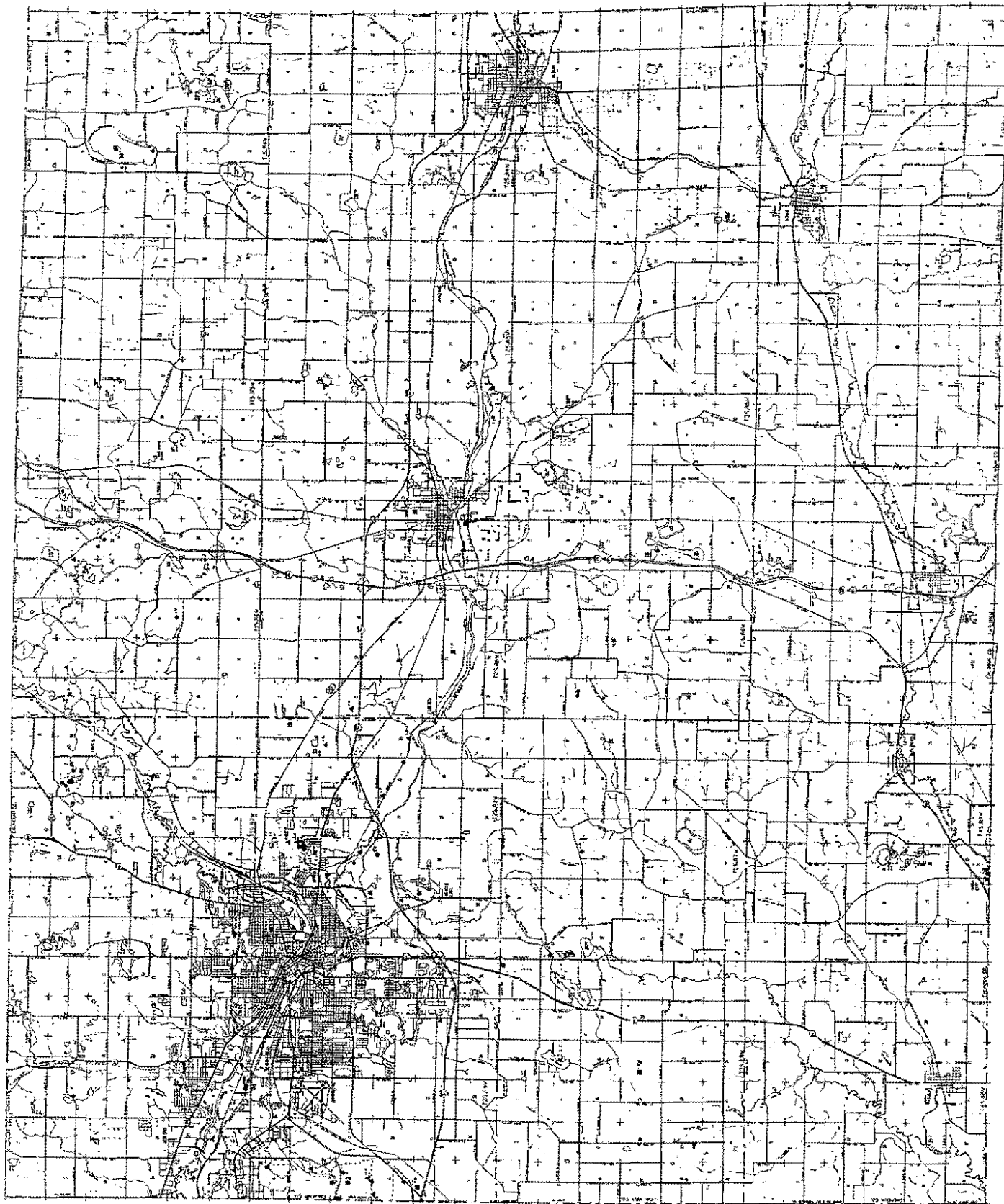
ARTICLE IX: STATUTE

Section 1. Part 115 of Act 451 of Michigan Public Acts of 1994 is incorporated in and is hereby part of these bylaws.

These bylaws are hereby signed and adopted this _____ day of _____, 1998.

Signature

Map 11-2



632

- [illegible]

151

[illegible]

2000

1944-1945, 1946-1947, 1948-1949, 1950-1951, 1952-1953, 1954-1955, 1956-1957, 1958-1959, 1960-1961, 1962-1963, 1964-1965, 1966-1967, 1968-1969, 1970-1971, 1972-1973, 1974-1975, 1976-1977, 1978-1979, 1980-1981, 1982-1983, 1984-1985, 1986-1987, 1988-1989, 1990-1991, 1992-1993, 1994-1995, 1996-1997, 1998-1999, 2000-2001, 2002-2003, 2004-2005, 2006-2007, 2008-2009, 2010-2011, 2012-2013, 2014-2015, 2016-2017, 2018-2019, 2020-2021, 2022-2023, 2024-2025, 2026-2027, 2028-2029, 2030-2031, 2032-2033, 2034-2035, 2036-2037, 2038-2039, 2040-2041, 2042-2043, 2044-2045, 2046-2047, 2048-2049, 2050-2051, 2052-2053, 2054-2055, 2056-2057, 2058-2059, 2060-2061, 2062-2063, 2064-2065, 2066-2067, 2068-2069, 2070-2071, 2072-2073, 2074-2075, 2076-2077, 2078-2079, 2080-2081, 2082-2083, 2084-2085, 2086-2087, 2088-2089, 2090-2091, 2092-2093, 2094-2095, 2096-2097, 2098-2099, 2100-2101, 2102-2103, 2104-2105, 2106-2107, 2108-2109, 2110-2111, 2112-2113, 2114-2115, 2116-2117, 2118-2119, 2120-2121, 2122-2123, 2124-2125, 2126-2127, 2128-2129, 2130-2131, 2132-2133, 2134-2135, 2136-2137, 2138-2139, 2140-2141, 2142-2143, 2144-2145, 2146-2147, 2148-2149, 2150-2151, 2152-2153, 2154-2155, 2156-2157, 2158-2159, 2160-2161, 2162-2163, 2164-2165, 2166-2167, 2168-2169, 2170-2171, 2172-2173, 2174-2175, 2176-2177, 2178-2179, 2180-2181, 2182-2183, 2184-2185, 2186-2187, 2188-2189, 2190-2191, 2192-2193, 2194-2195, 2196-2197, 2198-2199, 2200-2201, 2202-2203, 2204-2205, 2206-2207, 2208-2209, 2210-2211, 2212-2213, 2214-2215, 2216-2217, 2218-2219, 2220-2221, 2222-2223, 2224-2225, 2226-2227, 2228-2229, 2230-2231, 2232-2233, 2234-2235, 2236-2237, 2238-2239, 2240-2241, 2242-2243, 2244-2245, 2246-2247, 2248-2249, 2250-2251, 2252-2253, 2254-2255, 2256-2257, 2258-2259, 2260-2261, 2262-2263, 2264-2265, 2266-2267, 2268-2269, 2270-2271, 2272-2273, 2274-2275, 2276-2277, 2278-2279, 2280-2281, 2282-2283, 2284-2285, 2286-2287, 2288-2289, 2290-2291, 2292-2293, 2294-2295, 2296-2297, 2298-2299, 2300-2301, 2302-2303, 2304-2305, 2306-2307, 2308-2309, 2310-2311, 2312-2313, 2314-2315, 2316-2317, 2318-2319, 2320-2321, 2322-2323, 2324-2325, 2326-2327, 2328-2329, 2330-2331, 2332-2333, 2334-2335, 2336-2337, 2338-2339, 2340-2341, 2342-2343, 2344-2345, 2346-2347, 2348-2349, 2350-2351, 2352-2353, 2354-2355, 2356-2357, 2358-2359, 2360-2361, 2362-2363, 2364-2365, 2366-2367, 2368-2369, 2370-2371, 2372-2373, 2374-2375, 2376-2377, 2378-2379, 2380-2381, 2382-2383, 2384-2385, 2386-2387, 2388-2389, 2390-2391, 2392-2393, 2394-2395, 2396-2397, 2398-2399, 2400-2401, 2402-2403, 2404-2405, 2406-2407, 2408-2409, 2410-2411, 2412-2413, 2414-2415, 2416-2417, 2418-2419, 2420-2421, 2422-2423, 2424-2425, 2426-2427, 2428-2429, 2430-2431, 2432-2433, 2434-2435, 2436-2437, 2438-2439, 2440-2441, 2442-2443, 2444-2445, 2446-2447, 2448-2449, 2450-2451, 2452-2453, 2454-2455, 2456-2457, 2458-2459, 2460-2461, 2462-2463, 2464-2465, 2466-2467, 2468-2469, 2470-2471, 2472-2473, 2474-2475, 2476-2477, 2478-2479, 2480-2481, 2482-2483, 2484-2485, 2486-2487, 2488-2489, 2490-2491, 2492-2493, 2494-2495, 2496-2497, 2498-2499, 2500-2501, 2502-2503, 2504-2505, 2506-2507, 2508-2509, 2510-2511, 2512-2513, 2514-2515, 2516-2517, 2518-2519, 2520-2521, 2522-2523, 2524-2525, 2526-2527, 2528-2529, 2530-2531, 2532-2533, 2534-2535, 2536-2537, 2538-2539, 2540-2541, 2542-2543, 2544-2545, 2546-2547, 2548-2549, 2550-2551, 2552-2553, 2554-2555, 2556-2557, 2558-2559, 2560-2561, 2562-2563, 2564-2565, 2566-2567, 2568-2569, 2570-2571, 2572-2573, 2574-2575, 2576-2577, 2578-2579, 2580-2581, 2582-2583, 2584-2585, 2586-2587, 2588-2589, 2590-2591, 2592-2593, 2594-2595, 2596-2597, 2598-2599, 2600-2601, 2602-2603, 2604-2605, 2606-2607, 2608-2609, 2610-2611, 2612-2613, 2614-2615, 2616-2617, 2618-2619, 2620-2621, 2622-2623, 2624-2625, 2626-2627, 2628-2629, 2630-2631, 2632-2633, 2634-2635, 2636-2637, 2638-2639, 2640-2641, 2642-2643, 2644-2645, 2646-2647, 2648-2649, 2650-2651, 2652-2653, 2654-2655, 2656-2657, 2658-2659, 2660-2661, 2662-2663, 2664-2665, 2666-2667, 2668-2669, 2670-2671, 2672-2673, 2674-2675, 2676-2677, 2678-2679, 2680-2681, 2682-2683, 2684-2685, 2686-2687, 26

Page 8 of 10